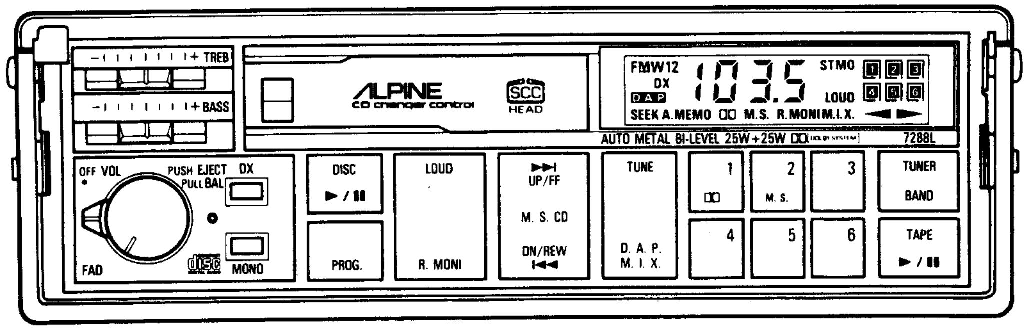
ALPINE

SERVICE MANUAL

Digital FM/AM Cassette Deck

- "For the cassette deck mechanism parts(GR75E020) of this model, refer to the GR Series Service Manual (Part No. 68P20504W02)."



TREB
BASS
ALPINE
CD changer control
SCC
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FMW12
DX
DAP
103.5
STMO
LOUD
SEEK A.MEMO
M.S.
R.MONI
M.I.X.
AUTO METAL BI-LEVEL 25W+25W
7288L
OFF VOL
PUSH EJECT
PULL BAL
DX
FAD
disc
MONO
DISC
►/❚❚
PROG.
LOUD
R. MONI
►►❙
UP/FF
M. S. CD
DN/REW
❙◄◄
TUNE
D. A. P.
M. I. X.
1
2
M. S.
3
4
5
6
TUNER
BAND
TAPE
►/❚❚

7288M/L/MM

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Specifications

[FM RADIO]

Intermediate Frequency	10.7±0.1 MHz
Frequency Range	87.5 ~ 108 MHz
Usable Sensitivity (stereo, 98.1 MHz)	17.2 dBf
Limiting Sensitivity (98.1 MHz)	14.2^{+3}_{-5} dBf
SK Sensitivity (98.1 MHz)	25.2 dBf (7288M Model Only)
S/N Ratio (stereo, 98.1 MHz)	48 dB
Image Rejection (106.1 MHz)	40 dB
IF Rejection (90.1 MHz)	60 dB
Distortion (Input 1 mV, 98.1 MHz)	1%
Frequency Response (100 Hz)	0±3 dB
(98.1MHz, Ref 400 Hz) (10 kHz)	−12±3 dB
Stereo Separation (1 kHz)	25 dB

[MW RADIO]

Intermediate Frequency	450 kHz
Frequency Range	531 ~ 1602 kHz
Sensitivity (20 dB S/N, 999 kHz)	45.2 dBf
S/N Ratio (999 kHz)	44 dB
Image Rejection (1404 kHz)	50 dB
IF Rejection (603 kHz)	60 dB
Distortion (999 kHz)	1%
Frequency Response (100 Hz)	−3±4 dB
(999 kHz, Ref 400 Hz) (4 kHz)	−12±6 dB

[LW RADIO]

Intermediate Frequency	450 kHz
Frequency Range	153 ~ 281 kHz
Sensitivity (20 dB S/N, 216 kHz)	52.2 dBf
S/N Ratio (216 kHz)	40 dB
Image Rejection (216 kHz)	50 dB
IF Rejection (216 kHz)	50 dB
Distortion (216 kHz)	2%
Frequency Response (100 Hz)	−3±4 dB
(216 kHz, Ref 400 Hz)(4 kHz)	−12±6 dB

[TAPE PLAYER]

Wow & Flutter (JIS WRMS, MTT-111)	0.2%
Tape Speed (MTT-111)	4.76 cm/sec $^{+3}_{-1}$ %
S/N Ratio (MTT-112) Dolby OFF	52 dB
Dolby B	58 dB
Distortion (MTT-118)	2%
Frequency Response	63 Hz ~ 12.5 kHz
(MTT-256, −3 dB, Ref 1 kHz)	
Separation (MTT-141)	30 dB
Crosstalk (MTT-121)	45 dB
FF & RWD Time (C-60)	140 sec

[GENERAL]

Load Impedance	4 ohm/ch
Power Supply	D.C. 14.4 V
Power Output	9 W/ch
Pre-Output Voltage	1.2 V
Semiconductors	20 IC's, 76 Transistors, 30 Diodes, 12 Zener Diodes (7288M Model Only) 18 IC's, 68 Transistors, 27 Diodes, 11 Zener Diodes (7288L Model Only)
Dimensions	Nose: 171(W) x 50(H) x 15(D) mm Chassis: 178(W) x 50(H) x 160(D) mm
Weight	1.6 kg

Note: Due to continuing product improvement, specifications and designs are subject to change without notice.

Features

- **FULL FRONT DIN™ CHASSIS**

- **CD CHANGER CONTROLS (When used with the Alpine 5952)**

- **SCC TAPE HEAD™**
  The SCC tape head provides an exceptionally flat frequency response.

- **QUICK RELEASE BRACKET (Q.R.B.)**
  Alpine's exclusive Q.R.B. design allows for easy removal of the 7288M/L/MM, while still maintaining memory. The 7288M/L/MM may then be carried with the owner for theft prevention.

- **PRESET ADDRESS**
  The numbers in the matrix display indicate which preset has been selected (in the Radio mode).

- **A. MEMO (AUTO MEMORY)**
  In the Auto Memory mode, the 6 strongest FM, MW or LW stations will automatically be stored in preset memory.

- **D.A.P. (DIRECT ACCESS PRESET)**
  D.A.P. allows the storage of FM, MW and LW presets on the same band, eliminating the need to press the TUNER/BAND button. UP to 6 FM and MW/LW stations can be mixed in the D.A.P. Band.

- **FULL LOGIC DECK WITH TRUE FAST FORWARD AND REWIND**

- **IGNITION "KEY OFF" PAUSE**
  The tape head and pinch roller disengage from the tape when the ignition is turned off, but the cassette remains inside the deck.

- **AUTO METAL**
  When a metal cassette tape is inserted the tape mechanism automatically adjusts to metal tape equalization (70 sec).

- **RADIO MONITOR**
  Allows listening to the FM and MW/LW Tuner section while the tape is in the fast forward or rewind mode.

- **M.I.X**
  When the M.I.X. button is pressed, the microprocessor inside the 7288M/L/MM will randomly select tracks on the selected disc for playback. After all tracks have been played, the M.I.X. feature will go into the Repeat Mode and begin again.

- **DOLBY* B NOISE REDUCTION**

- **MUSIC SENSOR**
  Allows you to access the beginning of the current or next musical selection on the tape using Fast Forward and Fast Reverse.

- **LOUDNESS CONTROL AND INDICATOR**

- **LITETOUCH™ 30-STATION PRESETS**
  6-FM1; 6-FM2; 6-MW; 6-LW; 6-D.A.P.

- **SELECTABLE FADER**
  This system allows you to select either the pre-amp or power amp fader mode. The pre-amp fader controls the signal level in the pre-amp stage for two amplifiers, and the power amp fader balances the front and rear speaker sound in a four-speaker system using the unit's internal power.

* Noise reduction manufactured under license from Dolby Laboratories Licensing Corporation. "Dolby" and the double-D symbol are trademarks of Dolby Laboratories Licensing Corporation.

Controls & Indicators

[7288M/MM model only]

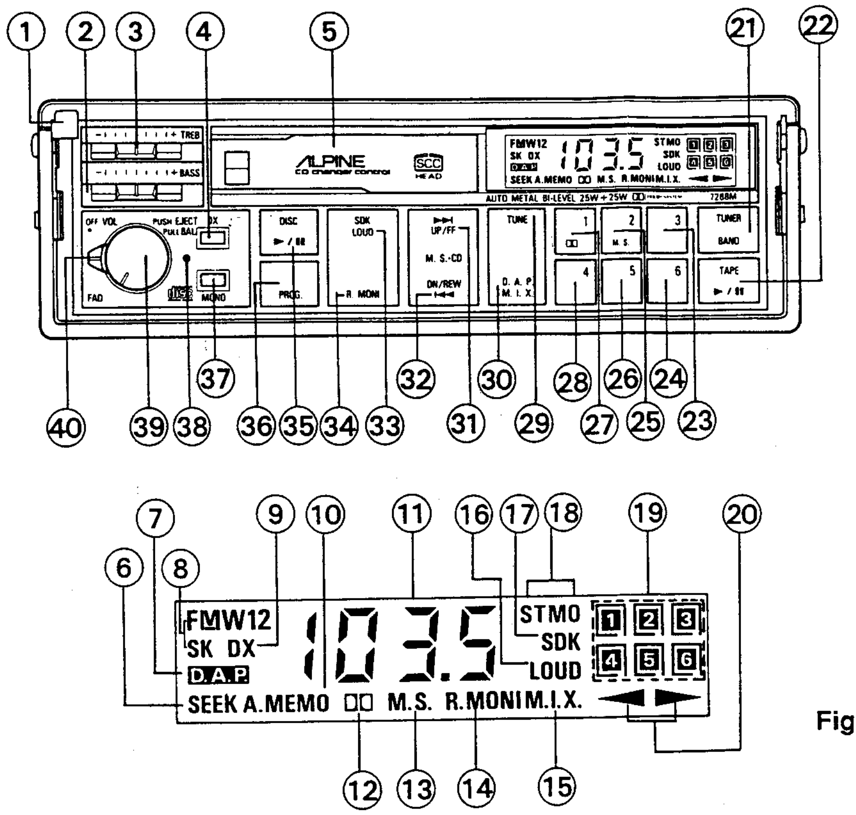

Figure 1

① Q.R.B. Handle Lever
② BASS Control
③ TREBle Control
④ DX (Local/Distance) button
⑤ Cassette Loading Slot
⑥ SEEK Indicator
⑦ D.A.P. Indicator
⑧ Band Indicators/SK Indicator
⑨ DX Indicator
⑩ A. MEMO Indicator
⑪ Digital Display
⑫ Dolby B Indicator
⑬ M.S. Indicator
⑭ R. MONI Indicator
⑮ M.I.X. Indicator
⑯ LOUD Indicator
⑰ SDK Indicator
⑱ STereo Indicator/MONO Indicator
⑲ Preset Address Indicators
⑳ Tape Direction Indicators
㉑ TUNER/BAND Button
㉒ TAPE (Play ▶/Pause ❚❚) Button
㉓ Preset and Direct Disc Access No. 3 Button
㉔ Preset and Direct Disc Access No. 6 Button
㉕ Preset and Direct Disc Access No. 2/M.S. Button
㉖ Preset and Direct Disc Access No. 5 Button
㉗ Preset and Direct Disc Access No. 1/Dolby B Button
㉘ Preset and Direct Disc Access No. 4 Button
㉙ TUNE Button
㉚ D.A.P./M.I.X. Button
㉛ M.S./CD UP/FF button (▶▶❙)
㉜ M.S./CD DN/REW Button (❙◀◀)
㉝ SDK Button/LOUDness Button
㉞ Radio MONItor Button
㉟ DISC (Play ▶/Pause ❚❚) Button
㊱ PROGram Button
㊲ MONO Button
㊳ Reset Switch
㊴ Power Switch (Turn)/EJECT Button (PUSH)/ VOLume (Turn) and Balance (PULL and Turn) control
㊵ FADer Control

[7288L r

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③ TREBl
④ DX (Lo
⑤ Casset
⑥ SEEK I
⑦ D.A.P.
⑧ Band I
⑨ DX Ind
⑩ A. MEI
⑪ Digital
⑫ Dolby
⑬ M.S. In
⑭ R. MOI
⑮ M.I.X. I
⑯ LOUD
⑰ STerec
⑱ MONO
⑲ Preset
⑳ Tape D
㉑ TUNEF
㉒ TAPE

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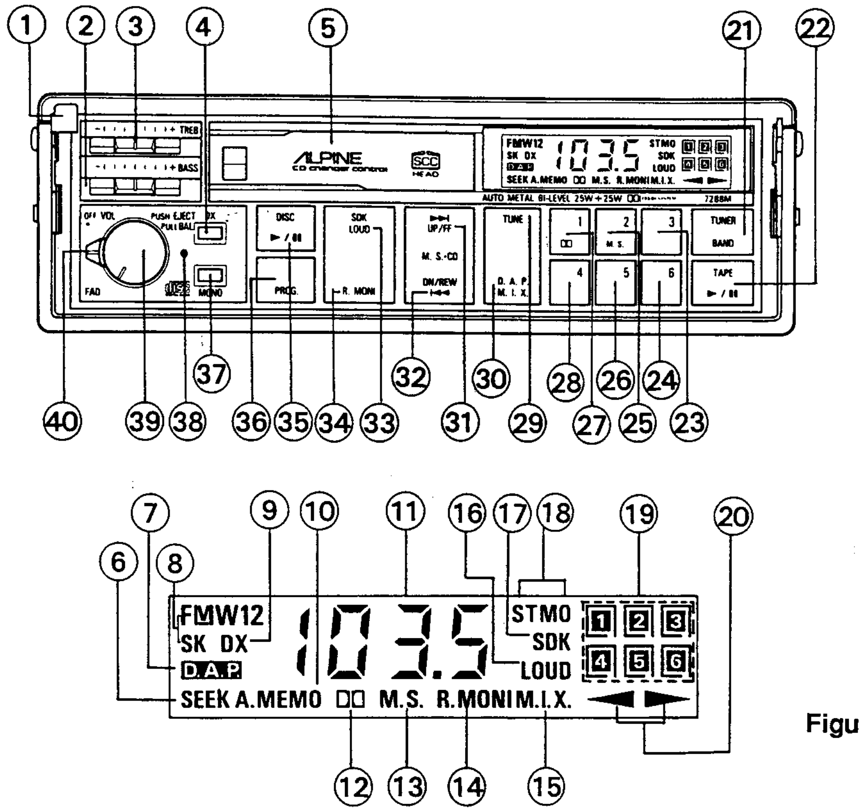
Controls & Indicators

[7288M/MM model only]



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㊴Power Switch (Turn)/EJECT Button (PUSH)/ VOLume (Turn) and Balance (PULL and Turn) control
㊵FADer Control

[7288L model only]

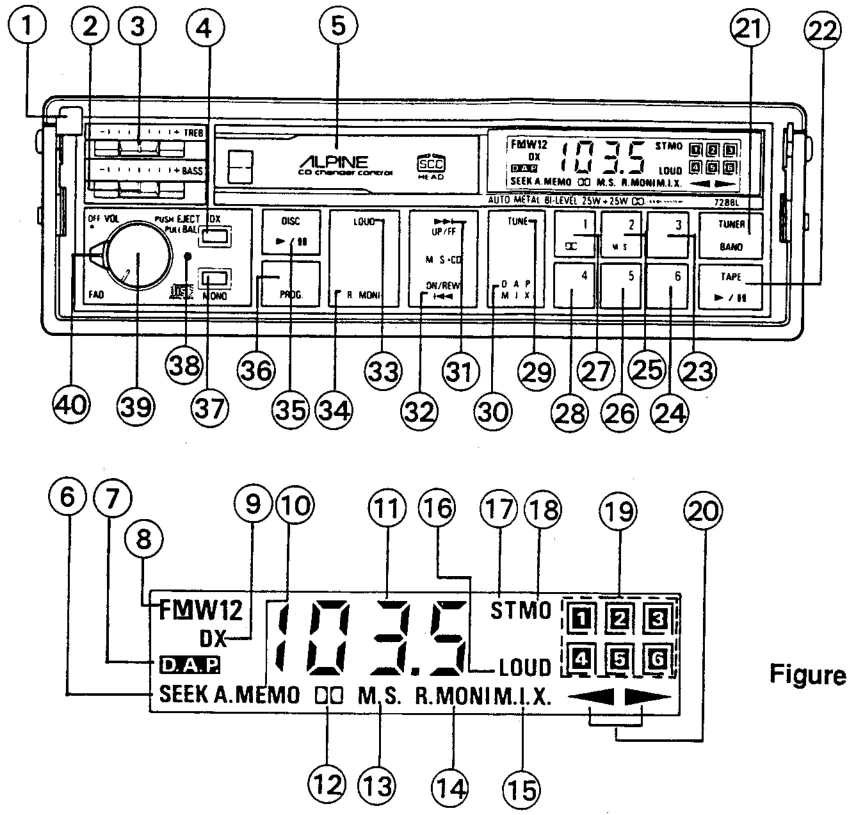

Figure 2

①Q.R.B. Handle Lever
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⑥SEEK Indicator
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Connections

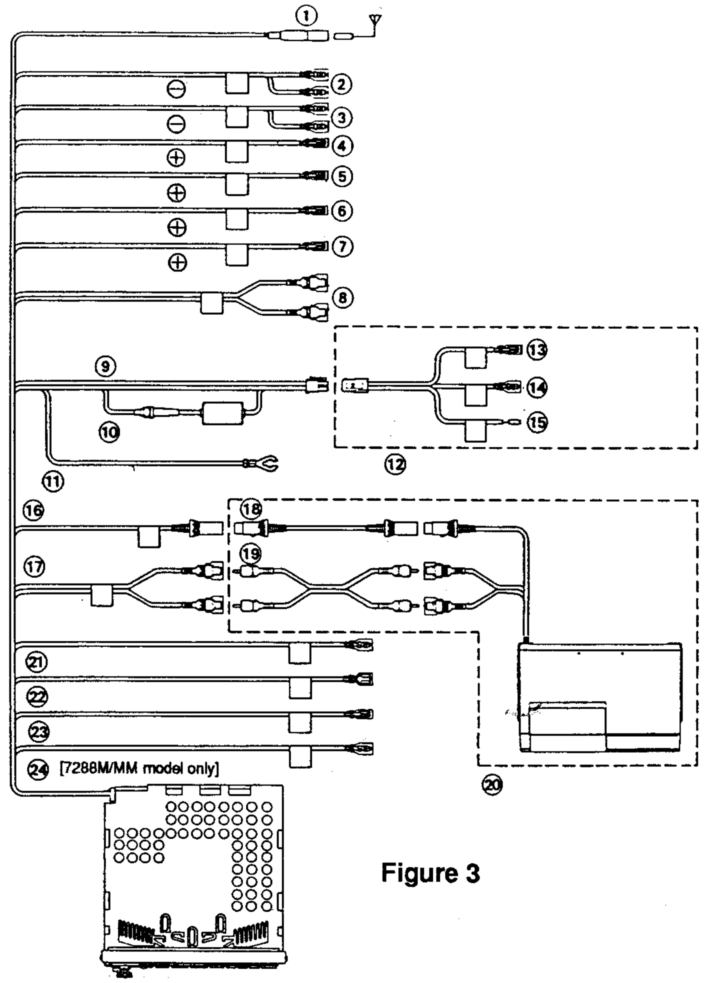

Figure 3

This unit is designed for 12-volt DC negative ground operation. Check to be sure that your vehicle has this type of system before connecting the power cable.

① **Antenna Receptacle**

② **Left Speaker Output Lead (Common) (WHITE/BLACK)**

③ **Right Speaker Output Lead (Common) (GREY/BLACK)**

④ **Left Front Speaker Output Lead (WHITE)**

⑤ **Right Front Speaker Output Lead (GREY)**

⑥ **Left Rear Speaker Output Lead (GREEN)**

⑦ **Right Rear Speaker Output Lead (VIOLET)**

⑧ **Rear Output RCA Connectors (Labeled LINE OUT REAR)**
RED is Right and WHITE is Left.

⑨ **Power Supply Connector**
Connect to Power Wiring Harness.

⑩ **Fuse Holder (5A)**

⑪ **Ground Lead (BLACK)**
Connect this lead to a good chassis ground on the vehicle. Make sure the connection is made to bare metal and is securely fastened using a sheet metal screw.

⑫ **Power Wiring Harness**
Connect the BLUE/WHITE, RED, and YELLOW leads.

⑬ **Remote Turn-On Lead (Labeled REMOTE ON) (BLUE/WHITE)**
Connect this lead to the remote turn-on lead of your amplifier or signal processor.

⑭ **Switched Power Lead (Labeled IGNITION) (RED)**
Connect this lead to an open terminal on the vehicle's fuse box or another unused power source which provides (+) 12V only when the ignition is turned on or in the accessory position.

CAUTION: You must be very careful when connecting wires to the vehicle's electrical system. Be sure you do not interface leads that are being used for factory components in the vehicle (like an on-board computer). When making connections at the fuse box, make sure there is an appropriate value fuse on the circuit you plan to use. Failure to do so may result in damage to the unit and/or the vehicle.

⑮ **Battery Lead (YELLOW)**
Connect this lead to the positive (+) post of the vehicle's battery.

⑯ **DIN Connector**
Connect this to 5952 CD changer only for control.

⑰ **Input RCA Connectors (Labeled TO CHANGER)**
RED in Right and WHITE is Left.

NOTE: The 7288M/L uses female RCA type connectors that are designed to connect to another unit (source unit, signal processor, or amplifier) having RCA connectors. You may need an adaptor to convert the other unit to this format. If so, please contact your authorized Alpine dealer for assistance.

⑱ **DIN Extension Cable**

⑲ **RCA Extension Cable**

⑳ **5952 (Sold separately)**

㉑ **Dimmer Control Lead (WHITE/BLUE)**
This lead is for connection to a rheostat such as the dashboard light dimmer in your vehicle. Applying (+) 12V to this lead causes the maximum dimming. Varying the voltage controls the brightness of the display. This allows you to dim the unit's display with the dashboard lights.

㉒ **Power Antenna Lead (BLUE)**
When used with a power antenna, connect to the +B terminal of the power antenna.

㉓ **Audio Interrupt In Lead (PINK/WHITE)**
Applying (+) 12V to this lead mutes the audio output. This works well when connecting the 7288M/L with a Cellular Phone equipped with Audio Interface output. Removing (+) 12V from this lead deactivates the muting circuit.

㉔ **Audio Interrupt Out Lead (PINK/WHITE) (7288M/MM model only)**
Connect to Audio Interrupt In Lead of a CD player, etc.

Operation

● BASIC OPERATION

Power Switch and Volume Control ㊴
Rotating the Power switch ㊴ clockwise turns the power ON and continuously increases the volume. Rotating the control counterclockwise will continuously decrease the volume, and turn the Power OFF.

NOTE: Keep the volume control turned fully counterclockwise before your program starts. Adjust the volume by gradually turning the control clockwise once playback begins. Do not turn the control clockwise abruptly as the excessive power could damage the speakers.

Balance Control ㊴
Pull on the Volume control ㊴ and rotate to balance between left and right speakers.

Fader Control ㊵
Rotate the Fader control ㊵ for your desired front to rear volume balance.

Separate Bass and Treble Controls (②, ③)
Slide these controls to the right to increase, and to the left to decrease the level of Bass or Treble.

Loudness
Press and hold the LOUD button ㉝ for more than two seconds to activate the loudness function. Press and hold the LOUD button for more than two seconds again to defeat this feature.

Mode Switching of the 7288M/L/MM
1. Radio Mode
   Press the TUNER Button ㉑ to put the unit into the radio mode. The Band indicator ⑧ (FM, MW or LW) will appear in the display.
2. Cassette Player Mode
   Press the TAPE button ㉒ to put the unit into the cassette player mode.
3. CD Changer Mode
   Press the DISC button ㉟ to put the unit into the CD mode.

<RADIO OPERATION>

Turn the power on and set the unit to the radio mode.

Band Selector Button
Press the BAND button ㉑ to select the desired tuning band. The Band indicator ⑧ shows your selection.

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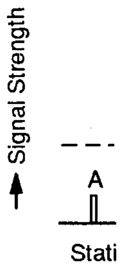

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<RADIO OPERATION>

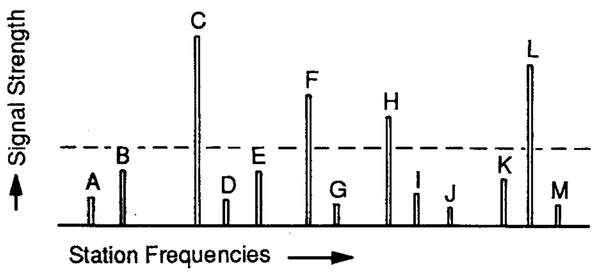
Turn the power on and set the unit to the radio mode.

Band Selector Button

Press the BAND button ㉑ to select the desired tuning band. The Band indicator ⑧ shows your selection.

Local/Distance (DX) Sensitivity Switching for FM, MW and LW

You can select the radio SEEK sensitivity (local or distance (DX)) by pressing the DX button ④.
In the distance mode, with DX indication ⑨, the radio tunes in both strong and weak stations (all stations from A to M in the illustration).
In the local mode, with no DX indication ⑨, the radio tunes in only strong stations (stations C, F, H and L in the illustration below).



FM Stereo/Monaural Switching

[7288M/MM model only]
You can select the Stereo/Monaural-Auto Switching or Monaural mode for FM receiving by pressing the MONO button ㊲. In the Auto switching mode, you can receive stereo broadcasting in Stereo, and monaural broadcasting in MONO. The STereo ⑱ or MONO ⑱ indicator shows your reception mode. In the Monaural only mode, you will always receive the broadcast in monaural even if the broadcast is stereo. The Monaural only mode quiets the noisy stereo signal of weaker broadcasts. The STereo indicator ⑱ will not appear while the Monaural only mode is selected.

[7288L model only]
You can select the Stereo/Monaural-Auto Switching or Monaural mode for FM receiving by pressing the MONO button ㊲. In the Auto switching mode, you can receive stereo broadcasting in Stereo, and monaural broadcasting in MONO. The STereo ⑰ or MONO ⑱ indicator shows your reception mode. In the Monaural only mode, you will always receive the broadcast in monaural even if the broadcast is stereo. The Monaural only mode quiets the noisy stereo signal of weaker broadcasts. The STereo indicator ⑰ will not appear while the Monaural only mode is selected.

Manual TUNING

1. Press the TUNE button ㉙ until the SEEK ⑥ and A. MEMO ⑩ indicators disappear in the display.
2. To select the tuning band, press the BAND button ㉑. The Band indicator ⑧ shows your selection.
3. To tune to higher frequencies, press the M.S./CD button on the top UP (▶▶|) ㉛.
   To tune to lower frequencies, press this same button on the bottom DowN (|◀◀) ㉜.

Auto SEEK Tuning

1. Press the TUNE button ㉙ until the SEEK indicator ⑥ appears in the display.
2. Select the tuning band with the BAND button ㉑.
3. Press the UP(▶▶|) ㉛ or DowN (|◀◀) ㉜ button. The unit automatically tunes to the next higher or lower frequency and locks on that station.

Manual Memory Preset

Follow the instructions below to enter stations into preset memory:

1. Select the tuning band (FM1, FM2, MW or LW) with the BAND button ㉑.
2. Tune in your desired station using Manual or Auto SEEK tuning.
3. Press Preset button number 1 ㉗ for more than two seconds. The matrix display ⑲ will begin to blink. Press that preset button again while the display is blinking (within 5 seconds).
4. The frequency you selected will be placed into Preset Memory number 1 and will appear in the display.
5. Follow steps 2-3 for the remaining presets (2-6). This procedure should be followed for FM1, FM2, MW and LW.

NOTE: If a preset memory has already been set in the same address, it will be cleared and the new station be memorized.

Auto MEMOry Preset

1. Press the TUNE button ㉘ to light up the A.MEMO indicator ⑩.
2. Select the desired tuning band (FM1, FM2, MW or LW) with the BAND button ㉑.
3. Press the UP (▶▶|) ㉛ or DN (|◀◀) ㉜ button. The tuner will automatically seek the six strongest stations in each band and memorize them in order of the signal strength. These stations are automatically placed in the preset memory with the strongest station in Preset No.1 and the 6th strongest station in Preset No.6. When seeking stations, the tuner first seeks in the local tuning mode. If less than 6 stations are memorized, the tuner seeks again in the distanse (DX) mode.
4. After finishing the Auto MEMOry Preset, the tuner goes to the station placed in Preset Memory No. 1. If no stations are memorized, it returns to the original station you were listening to before the Auto MEMOry Preset procedure began.

Preset Tuning

After the preset stations have been memorized, you can tune in your desired station (within the band displayed) with one touch of a button.

1. Select the tuning band (FM1, FM2, MW or LW) with the BAND button ㉑.
2. Press any one of the Preset buttons (㉓–㉘) and the number of that preset will illuminate in the matrix display.
3. The frequency of the station placed in the selected preset location will appear in the display.

D.A.P.(Direct Access Preset)

This feature allows the storage of FM, MW and LW presets on the same band.Press the D.A.P. button ㉚ to light up the D.A.P. indicator ⑦. To program stations into the D.A.P. band, follow steps 2–4 as described in the Manual Memory Preset section.

Accessing the D.A.P. Presets

1. Press the D.A.P. button ㉚ .The D.A.P. indicator ⑦. will illuminate in the display.
2. Press one of the preset buttons (㉓–㉘).
3. The frequency of the station placed in the selected D.A.P. location will appear in the display.

Traffic Information Receiving
[7288M/MM model only]

The model is equipped with traffic information receiving apparatus to be used in West Germany where the traffic information is broadcast in FM. The following is how to use this unit to receive traffic information broadcasting.

1. Select FM position.
2. Depress the SDK button ㉝ and tune to a station. If the station is a traffic information station, the SK indicator ⑧ will glow and show the reception of a broadcast from a traffic information station.

   NOTE: SK Indicator
   When SK signal is received irrespective of the SDK button position, the SK indicator will illuminate.

3. In the SDK mode, stations other than traffic information stations are muted and cut out. Therefore, it is easy to select a traffic information station.
4. As the signal of the tuned traffic information station becomes weak, the SK indicator will extinguish. Then after the lapse of 25 seconds, a rhythmical alarm will sound to urge retuning to another stronger station. If the reception of further traffic information is required, tune in the desired traffic information station. When received, the alarm will stop and the SK indicator illuminates. Since the alarm will continue if no signals from any other traffic stations can be received, release SDK button for reception of normal broadcasting.
5. When the unit is playing a tape or a CD with the SDK button pushed in and tuned to a traffic information station, the tape or CD play is interrupted and changed to FM radio if the pre-tuned station begins a traffic information message. When the message is over, the unit reverts to tape or CD play automatically.

6 Even if the Volume control is set to the minimum position, the volume of the traffic information will be automatically adjusted to proper level. After the message, the sound volume returns to the previously adjusted level.

7. If traffic information reception is no longer necessary, release SDK button for normal radio reception.

NOTE: When the SDK button is pressed and there is no SK signal, ALARM will sound after the lapse of 25 seconds.Press the SDK button again to stop it.

NOTE: This unit has a special volume control on the left side of the unit for adjusting the volume level for SDK reception and the alarm which will sound when there is no SK signal in the SDK mode. Set the Volume control ㊴ to the minimum level position, and adjust the special volume control on the left side of the unit to your desired level with a screwdriver.

<TAPE PLAYER OPERATION>

Turn the unit on and press the TAPE (▶/❚❚) button ㉒ to access the tape mode.

Dolby* B Noise Reduction

Before playing a cassette tape, check to see if it is encoded with Dolby B noise reduction.
Press the Dolby B button ㉗ when playing a Dolby encoded tape. The Dolby B indicator ⑫ will illuminate.

Cassette Loading and Reloading

1. Insert a prerecorded cassette tape into the Cassette Loading Slot ⑤ with the open side facing to your right.
2. If the cassette tape is not completely loaded into the deck, lightly press the cassette into the slot.

Eject

Press the EJECT button ㊴ to eject the cassette from the tape mechanism.

Pause

To temporarily stop playback, press the TAPE (▶/❚❚) button ㉒. To resume playback, press the same button again.

Playback

1. Insert a prerecorded cassette tape with the open side facing right. The playback begins immediately.
2. If a cassette tape is already loaded in the unit, press the TAPE (▶/❚❚) button ㉒ to start playback.
3. To stop tape play, press the EJECT button ㊴ or turn the power off with the POWER switch ㊴.

True Fast Forward and Rewind

1. Press the FF button ㉛ to advance the tape quickly. Press the REW button ㉜ to rapidly run the tape backward. The deck will perform these function correctly regardless of the tape play direction.
2. To disengage the FF or REW function, press the TAPE (▶/❚❚)button ㉒.

Music Sensor

1. Press the Music Sensor (M.S.) button ㉕ and its indicator ⑬ will light up.
2. Push the FF button ㉛ to advance to the beginning of the next musical track. Press the REW button ㉜ to go back to the beginning of the current musical track.
3. The tape deck searches forward (or back) until it senses a blank section on the tape and begins playback at that point.

NOTE: The Music Sensor cannot detect blank sections of less than three seconds.

Radio Monitor

If the Radio Monitor button ㉞ is pressed during Fast Forward of Rewind, the unit will go into the tuner mode. When hte Fast Forward or Rewind operation is completed, the unit will return to the tape mode and begin playback.

NOTE: Radio Monitor will not function in the Music Sensor (M.S.) mode.

Auto Reverse

When the tape is played or fast-forwarded to the end, the tape transport automatically reverses the tape direction and playback begins.

Manual Reverse

To manually change playback direction (switch between side A and side B), press the PROG button ㊱.

Head Cleaning

When playback sound quality begins to deteriorate, it is time to clean the tape head. Insert a special head cleaning cassette into the tape deck and allow it to run for approximately one minute to remove any foreign matter. There are special cleaning cassettes that also clean the capstans and pinch rollers. Please contact your authorized Alpine dealer for information about these cleaning devices.

<CD OPERATION>

The following instructions apply only to systems that incorporate the Alpine 5952 CD changer with the 7288M/L.

Turn the unit on and access the CD mode by pressing the DISC (▶/❚❚) button ㉟.

Initial System Turn-On

When operating the system for the first time after installation or after the vehicle's battery has been disconnected and reconnected, press the Reset switch ㊳ with a sharp pencil or other pointed object.

Normal Play (Repeat All)

1. Press the DISC (▶/❚❚) button ㉟.
2. The digital display ⑪ will show "T-00" for a second, then "T-01" will be displayed and the first track on the first disc will begin playback.
3. After the last track on the last disc is played back, the pickup will return to the beginning of the first track of the first disc and begin playback from that point.

Pause

While the disc is playing, press the DISC (▶/❚❚) button ㉟ to temporarily stop playback. The digital display ⑪ will show "PAU". To resume playback, press the DISC (▶/❚❚) button ㉟ again.

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Eject

Press the EJECT button ㊴ to eject the cassette from the tape mechanism.

Pause

To temporarily stop playback, press the TAPE (▶/❚❚) button ㉒. To resume playback, press the same button again.

Playback

1. Insert a prerecorded cassette tape with the open side facing right. The playback begins immediately.
2. If a cassette tape is already loaded in the unit, press the TAPE (▶/❚❚) button ㉒ to start playback.
3. To stop tape play, press the EJECT button ㊴ or turn the power off with the POWER switch ㊴.

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Manual Reverse

To manually change playback direction (switch between side A and side B), press the PROG button ㊱.

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The following instructions apply only to systems that incorporate the Alpine 5952 CD changer with the 7288M/L.

Turn the unit on and access the CD mode by pressing the DISC (▶/❚❚) button ㉟.

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When operating the system for the first time after installation or after the vehicle's battery has been disconnected and reconnected, press the Reset switch ㊳ with a sharp pencil or other pointed object.

Normal Play (Repeat All)

1. Press the DISC (▶/❚❚) button ㉟.
2. The digital display ⑪ will show "T-00" for a second, then "T-01" will be displayed and the first track on the first disc will begin playback.
3. After the last track on the last disc is played back, the pickup will return to the beginning of the first track of the first disc and begin playback from that point.

Pause

While the disc is playing, press the DISC (▶/❚❚) button ㉟ to temporarily stop playback. The digital display ⑪ will show "PAU". To resume playback, press the DISC (▶/❚❚) button ㉟ again.

Music Sensor (Skip)

With this feature, you can get to the beginning of the music track of your choice simply and quickly. It is functional in the play or pause mode. The digital display ⑪ shows the pickup location with the Track Number.

To advance to the next track on the disc, press the M.S. UP (▶▶❙) button ㉛.

1. Playback stops, the pickup moves up to the beginning of the next track.
   The digital display ⑪ shows the number of the next track.
2. Playback begins immediately.
3. If you wish to select a track further ahead on the disc, continue pressing the M.S. UP (▶▶❙) button ㉛ until you reach the track of your choice.

To replay the track that is currently playing, press the M.S. DN (❙◀◀) button ㉜.

1. Playback stops, the pickup moves back to the beginning of hte current track. The track number display will remain the same.
2. Playback begins immediately from the beginning of the track.
3. If you wish to select a track further behind on the disc, continue pressing the M.S. DN (❙◀◀) button ㉜ until you reach the track of your choice.

Direct Disc Access

1. Press one of the Direct Disc Access buttons (㉓ - ㉘) to select from discs 1 - 6.
2. Press the M.S. UP ㉛ or DN ㉜ button for musical track selection.

Fast Forward/Fast Reverse

The Fast Forward/Fast Reverse feature works in both play and pause modes.

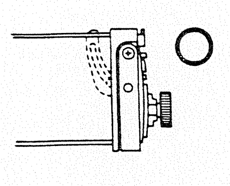
1. To rapidly move the pickup forward, press the M.S. UP (▶▶❙) button ㉛ and hold it down for more than one second.
2. To rapidly move the pickup backward, press the M.S. DN (❙◀◀) button ㉜ and hold it down for more than one second.
3. Continue holding the UP (▶▶❙) ㉛ or DN (❙◀◀) ㉜ button until you reach the point where you want to resume playback.
4. When the pickup reaches the end of the disc, the unit will go into the Pause mode.

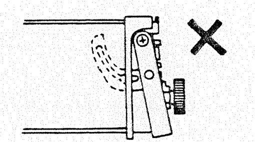
M.I.X. (Random Play)

Press the M.I.X. button ㉚ while the unit is in the play or pause modes. Musical tracks on the selected disc will be played back in a random sequence generated by the microprocessor. After all the tracks on the disc have been played back once, the player will begin a new random sequence.

Precautions

- When replacing the fuse(s), the replacement must be of the same amperage as shown on the fuse holder. If the fuse(s) blows more than once, carefully check all electrical connections for shorted circuitry. Also have your vehicle's voltage regulator checked. Do not attempt to repair the unit yourself. Return it to your Alpine dealer or the nearest Alpine Service Station for servicing.
- In order to ensure proper performance, be sure the temperature in your vehicle is between the range of 14°F (−10°C) to 140°F (60°C) before turning your player on. Good air circulation is essential to prevent heat build-up in the unit (especially in hot weather).
- C-120 type cassette tapes are not recommended for use in automobile tape players.
- Prevent any foreign objects from entering the cassette opening as the precision mechanism and tape head may be damaged.
- To protect your cassette tapes, store them in a cool place away from dust, dirt, and strong magnetic sources such as electric motors, speakers and TV sets.
- Check and make sure any slack in the tape is taken up before inserting the tape into the unit. A loose tape could cause damage to the unit and the tape itself. Tighten the cassette by inserting a pencil or a similar instrument into the spindle hole and turn until all the slack has been taken up.
- **CAUTION:** In the event of road vibration or rapid acceleration or vehicle collision, this unit may become dislodged from its case unless the handle is fully down. This could result in personal injury to occupants of the vehicle or physical damage to the unit. Please see the illustrations below for furhter information on how to properly secure the handle.





Error Indication for 5952

INDI-CATION	CAUSE	SOLUTION
E01	Disc-change malfunction.	Consult your Alpine dealer.
E02	Disc is in player mechanism.	Press the magazine eject button, and insert an empty magazine.
E03 E04 E05	Disc-change malfunction.	If the code disappears within a few seconds, unit is O.K. If not, consult your Alpine dealer.
E06	Disc-change malfunction.	Press the magazine eject button and pull out the magazine. And check no error indication. Try again. If the magazine can not be pulled out, consult your alpine dealer.
E07	Magazine ejection impossible.	Press the magazine eject button. If the magazine does not eject, consult your Alpine dealer.
E30	High temperature.	Will disappear when the temperature returns to operation range.
EEE	Misconnection or disconnection of CD changer.	Check connection between CD changer and control unit.
- - -	No CD magazine in the CD changer.	Insert the CD magazine.
2 - -	No CD at No. 2 pocket of CD magazine.	Insert a CD into the NO. 2 pocket of CD magazine.

Disassembly Instructions

1. Removal of Bracket Handle and Top Cover.

(1) Remove four screws marked "▲" as shown in Figure 4.
Pull out the bracket handle in the arrow [1] direction as shown in Figure 4.

(2) Remove four screws marked "■" as shown in Figure 4.
Pull out the top cover in the arrow [2] direction as shown in Figure 4.

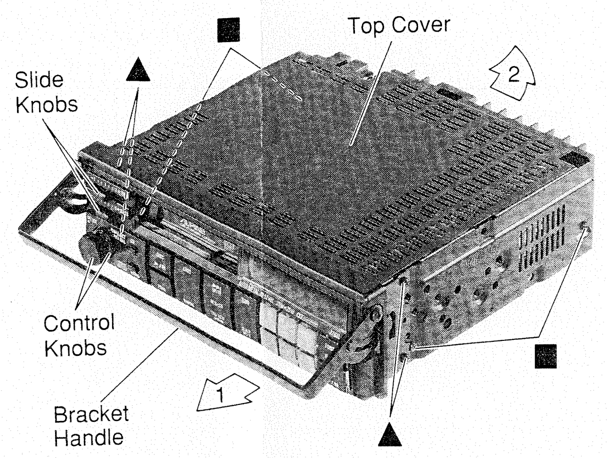


Figure 4

2. Removal of Nose Piece

(1) After removal of the top cover, remove two control knobs and two slide knobs as shown in Figure 4.

(2) Remove the four hooks (A) as shown in Figure 5 and 6.

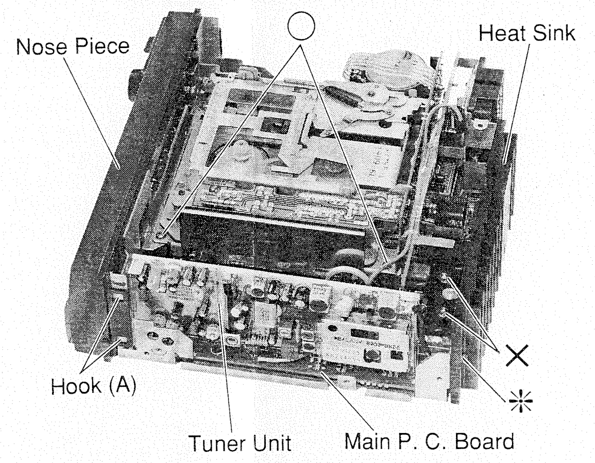


Figure 5

3. Removal of Cassette Deck

(1) After removal of nose piece, remove four screws marked "O" as shown in Figure 5 and 6.

(2) Disconnect a connector from Main P. C. Board.

4. Removal of Front P. C. Board

(1) After removal of cassette deck, remove two screws marked "Δ" as shown in Figure 7.

(2) Disconnect a connector from Main P. C. Board.

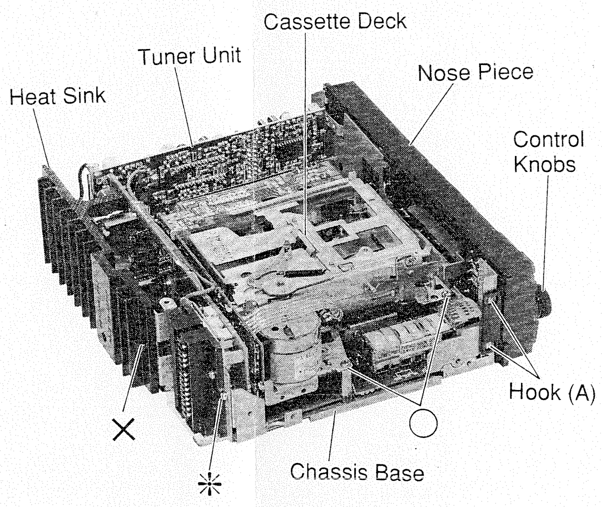


Figure 6

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Disassembly Instructions

1. Removal of Bracket Handle and Top Cover.

(1) Remove four screws marked "▲" as shown in Figure 4.
Pull out the bracket handle in the arrow [1] direction as shown in Figure 4.

(2) Remove four screws marked "■" as shown in Figure 4.
Pull out the top cover in the arrow [2] direction as shown in Figure 4.

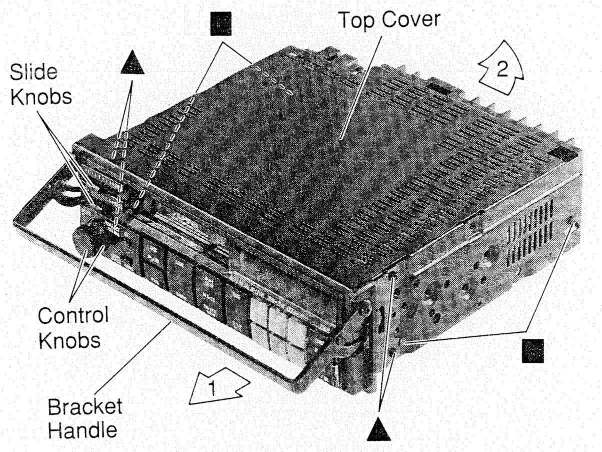

■
Top Cover
Slide Knobs
▲
2
Control Knobs
■
Bracket Handle
1
▲

Figure 4

2. Removal of Nose Piece

(1) After removal of the top cover, remove two control knobs and two slide knobs as shown in Figure 4.

(2) Remove the four hooks (A) as shown in Figure 5 and 6.

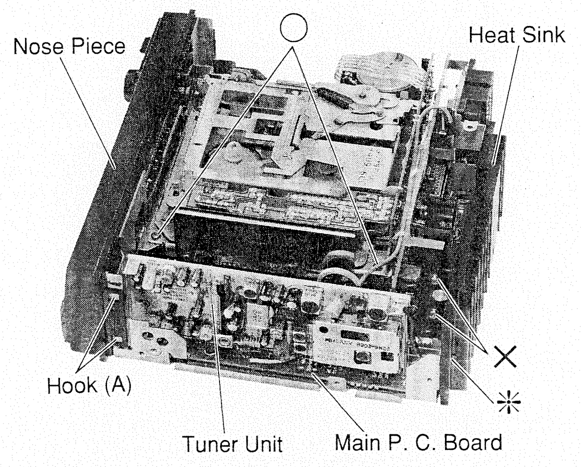

Nose Piece
○
Heat Sink
Hook (A)
X
✳
Tuner Unit
Main P. C. Board

Figure 5

3. Removal of Cassette Deck

(1) After removal of nose piece, remove four screws marked "O" as shown in Figure 5 and 6.

(2) Disconnect a connector from Main P. C. Board.

4. Removal of Front P. C. Board

(1) After removal of cassette deck, remove two screws marked "Δ" as shown in Figure 7.

(2) Disconnect a connector from Main P. C. Board.

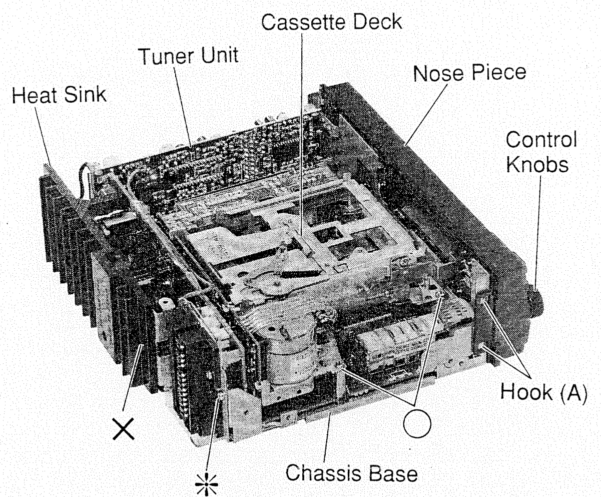

Cassette Deck
Tuner Unit
Nose Piece
Heat Sink
Control Knobs
Hook (A)
X
○
✳
Chassis Base

Figure 6

5. Removal of Chassis Base

(1) After removal of cassette deck, remove six screws marked "✳" as shown in Figure 5, 6 and 8.

(2) Disconnect the wire from Tuner Unit.

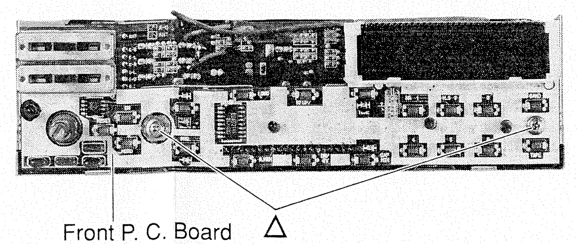

Front P. C. Board
Δ

Figure 7

6. Removal of Heat Sink

(1) After removal of the chassis Base, remove three Screws marked "X" as shown in Figure 5 and 6.

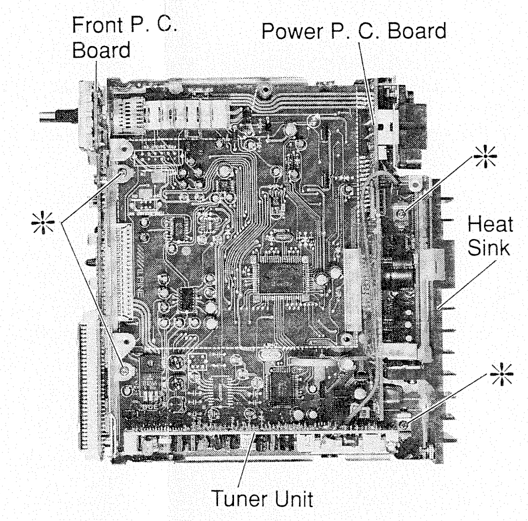

Front P. C. Board
Power P. C. Board
✳
✳
Heat Sink
✳
Tuner Unit

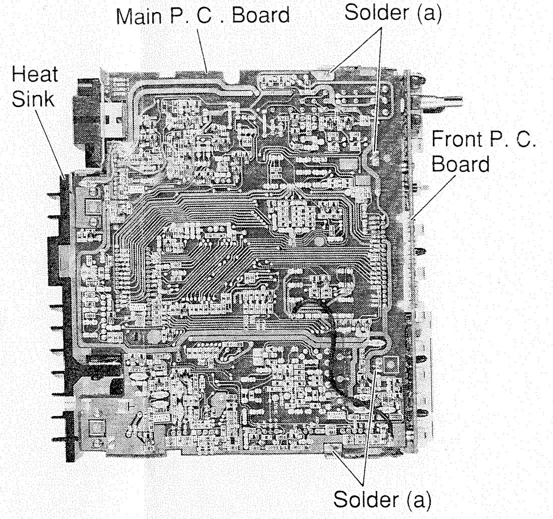
Figure 8

7. Removal of Power P. C. Board

(1) After removal of heat sink, disconnect a connector from Main P. C. Board.

8. Removal of Main P. C. Board

(1) After removal of Power P. C. Board, remove four solders (a) as shown in Figure 9.


Main P. C . Board
Solder (a)
Heat Sink
Front P. C. Board
Solder (a)

Figuer 9

IC Terminal Guide

• 16432W01: IC501

No.	Symbol	I/O	Terminal description
1	RUN-DET	I	Take-up reel detector input terminal for GR mechanism.
2	PACK-DWN	I	Pack Guide Position detector, input terminal for GR mechanism.
3	PLAY-SOL	O	Head base forward/back-ward selector output terminal for GR mechanism.
4	RF-SOL	O	Play/fast-forward (rewind) selector output terminal for GR Mechanism.
5	EJECT-SOL	O	Eject solenoid actuating output for GR mechanism.
6	MOTOR-CT	O	Motor running direction selector output terminal for GR mechanism.
7	$\overline{\text{RESET}}$	I	Reset signal input terminal.
8 9	X2 X1		Crystal/Ceramic connection terminal for system clock oscillation, in case of external clock, input to X1 and input opposite phase to X2.
10	LEVEL-O-FAST	O	Not Used Connect to VDD.
11	MOTOR-FAST	O	Motor rotational number selector output terminal for GR mechanism.
12	O-MOTOR	O	Motor rotation/stop selector output terminal for GR mechanism.
13	F/$\overline{\text{R}}$	O	Audio signal FWD/REV selector output terminal for GR mechanism.
14	PACK-IN	I	Pack insertion detector input terminal for GR mechanism.
15	METAL	I	Metal tape detector input terminal.
16 17	MUSIC	I	Tape non-recorded portion detector input terminal.
18	$\overline{\text{LCD INH}}$	O	Preset indicator LED lighting selector terminal.
19	PWR ON	O	Loudness selection output terminal.
20	DTS-CE	O	DTS chip enable signal output terminal.
21	SDK-BZ ON	O	SDK buzzer signal output terminal.
22	CHANGER ON	O	5952/7288 audio signal selector output terminal.
23	DOL-C	O	Not Used Connect to VDD.
24	DOL-B	O	Dolby-B selector output terminal.
25	KEY-P/S	O	Key path serial data selector output terminal.
26	VSS		Ground (GND) potential terminal.
27	$\overline{\text{PWR ON SW}}$	I	PWR SW input terminal.
28	ACC +5	I	Accessory power detector input terminal.
29	CHG DATA IN	I	5952 data input terminal.
30	BAT +5	I	Remote control data input terminal.
31 32	AREA1 AREA0	I	Destination selector input terminal.
33	$\overline{\text{SDK}}$	I	With/without SDK selector input terminal.
34	$\overline{\text{AUTO-ME}}$	I	With/without auto memory selector input terminal. (But for this model, connect to GND)
35 36	NC		Not Used Connect to GND.
37	VOL-PUSHKEY	I	Eject key input terminal.
38	KEY-IN	I	Key data input terminal.
39	$\overline{\text{MUTE}}$	I	DTS mute signal input terminal.
40	$\overline{\text{STRT}}$	I	DTS communication start signal input terminal.
41	STS	I	DTS status signal input terminal.
42	CMD	O	DTS command data output terminal.

No.	Symbol	I/O	Terminal description
43	$\overline{\text{SCK}}$	I	DTS synchronous clock signal input terminal.
44	NC		Not Used Connect to GND.
45	DATA	O	Display data signal output terminal.
46	CLOCK	O	Synchronous clock signal output terminal for display key input.
47	LCD-CE	O	LCD display chip enable signal output terminal.
48	NC		No connection.
49	$\overline{\text{LOUD}}$	O	Display lighting on/off selector output terminal.
50	SDK-BZ-TONE	O	SDK buzzer signal output terminal.
51	RADIO/$\overline{\text{TAPE}}$	O	Radio/tape mode selector output terminal.
52	CHG-DATA OUT	O	5952 control data output terminal.
53 54 55	NC		Not used. Connect to GND.
56	NC		Not used. Connect to GND.
57 58	VDD		Device power supply terminal.
59	$\overline{\text{MUTE}}$	O	Audio mute signal output terminal.
60	OUT-REMOTE	O	7288 play remote signal output terminal.
61	OUT-INT	O	Interrupt signal output terminal.
62	IN-INT	I	Interrupt signal input terminal.
63	IN-PAUSE	I	CD Play pause signal input terminal.
64	IN-REMOTE		Not used connect to GND.

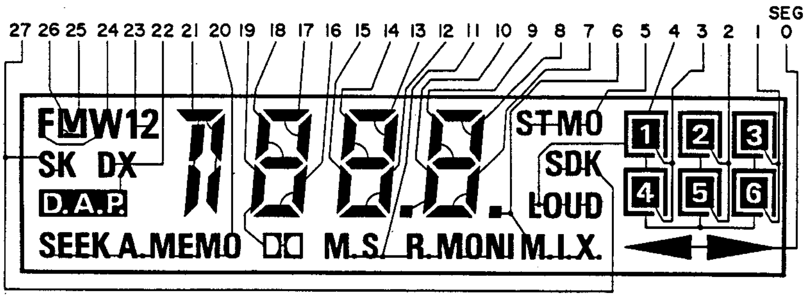
• 94468F04: IC502

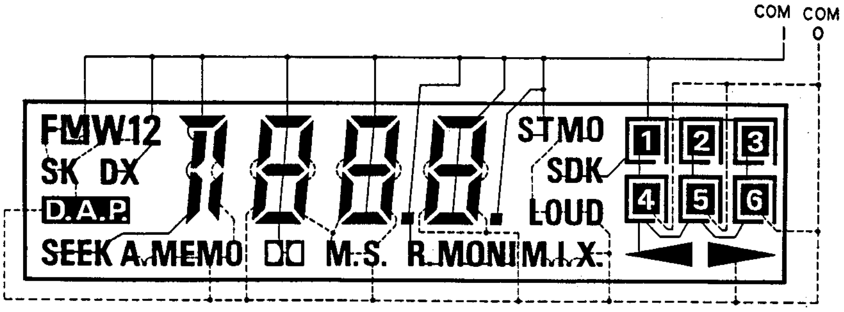
<table>
<tr><th>No.</th><th>Symbol</th><th>I/O</th><th>Terminal description</th></tr>
<tr><td>1</td><td>EO1</td><td>O</td><td>PLL error output terminal.</td></tr>
<tr><td>2</td><td>EO2</td><td>O</td><td>PLL error output terminal.</td></tr>
<tr><td>3</td><td>VDD1</td><td></td><td>Device power supply terminal.</td></tr>
<tr><td>4</td><td>VCOL</td><td></td><td>No connection.</td></tr>
<tr><td>5</td><td>VCOH</td><td>I</td><td>Input terminal for local oscillation (VCO) output.</td></tr>
<tr><td>6</td><td>CE</td><td>I</td><td>Device selector signal input terminal.</td></tr>
<tr><td>7</td><td>VDD2</td><td></td><td>Device power supply terminal.</td></tr>
<tr><td>8</td><td>NC</td><td></td><td>No connection.</td></tr>
<tr><td>9</td><td>MONO</td><td>O</td><td>High during Mono Tuning</td></tr>
<tr><td>10</td><td>NC</td><td></td><td>No connection.</td></tr>
<tr><td>11</td><td>NC</td><td></td><td>No connection.</td></tr>
<tr><td>12</td><td>MW/LW IF</td><td>I</td><td>MW/LW IF signal input terminal.</td></tr>
<tr><td>13</td><td>FM IF</td><td>I</td><td>FM IF signal input terminal.</td></tr>
<tr><td>14</td><td>SI (CMD)</td><td>I</td><td>Command data input terminal.</td></tr>
<tr><td>15</td><td>$\overline{\text{SCK}}$</td><td>O</td><td>Synchronizing clock output terminal for status signal reception.</td></tr>
<tr><td>16</td><td>STS</td><td>O</td><td>Status signal output terminal.</td></tr>
<tr><td>17</td><td>$\overline{\text{STRT}}$</td><td>O</td><td>Communication start signal output terminal.</td></tr>
<tr><td>18</td><td>$\overline{\text{MUTE}}$</td><td>O</td><td>Mute signal output terminal.</td></tr>
<tr><td>19</td><td>LO/$\overline{\text{DX}}$</td><td>O</td><td>High during local seek.</td></tr>
<tr><td>20</td><td>XO</td><td>O</td><td>Crystal oscillator connection terminal.</td></tr>
<tr><td>21</td><td>XI</td><td>I</td><td>Crystal oscillator connection terminal.</td></tr>
<tr><td>22</td><td>GND</td><td></td><td>Ground terminal for device.</td></tr>
<tr><td>23</td><td>CO</td><td></td><td>No connection.</td></tr>
<tr><td>24</td><td>TUNER ON</td><td></td><td>High during tuner on.</td></tr>
<tr><td>25</td><td>BAND3</td><td rowspan="3">O</td><td rowspan="3"><table><tr><th></th><th>BAND 1</th><th>BAND 2</th><th>BAND 3</th></tr><tr><td>FM</td><td>H</td><td>L</td><td>L</td></tr><tr><td>MW</td><td>L</td><td>H</td><td>L</td></tr><tr><td>LW</td><td>H</td><td>H</td><td>L</td></tr></table></td></tr>
<tr><td>26</td><td>BAND2</td></tr>
<tr><td>27</td><td>BAND1</td></tr>
<tr><td>28
to
41</td><td>NC</td><td></td><td>No connection</td></tr>
<tr><td>42</td><td>GND</td><td></td><td>Ground terminal.</td></tr>
<tr><td>43</td><td>DK</td><td>I</td><td>DK signal input terminal. (7288M only)</td></tr>
<tr><td>44</td><td>$\overline{\text{SK}}$</td><td>I</td><td>SK signal input terminal. (7288M only)</td></tr>
<tr><td>45</td><td>$\overline{\text{ST}}$</td><td>I</td><td>ST signal input terminal.</td></tr>
<tr><td>46</td><td>SD</td><td>I</td><td>Station detector input terminal.</td></tr>
<tr><td>47</td><td>SM</td><td>I</td><td>Input level detector input terminal.</td></tr>
<tr><td>48</td><td>CI</td><td>I</td><td>With/without clock selector terminal.</td></tr>
</table>

- **LC7582: IC401**

No.	Symbol	I/O	Terminal description
1 to 23	S1 to S23	O	Segment OUT.
24	NC		No connection.
25 to 29	S24 to S28	O	Segment OUT.
30 to 54	S29 to S53		No connection.
55	OSC	I	Oscillator.
56	VDD	I	Power supply.
57	INH	I	Display eighting off IN. (Effective to output driver. So serial data transfer is possible while eighting is off.)
58	VLCD	I	LCD bias voltage setting up.
59	VSS		Power supply.
60	CE	I	Serial data transfer IN.
61	CLK	I	Serial data transfer IN.
62	DATA	I	Serial data transfer IN.
63	COM2	O	Common OUT.
64	COM1	O	Common OUT.

LCD Display Circuit


SEG
27 26 25 24 23 22 21 20 19 18 17 16 15 14 13 12 11 10 9 8 7 6 5 4 3 2 1 0
FMW12
SK DX
D.A.P.
SEEK A.MEMO
M.S.
R.MONI
M.I.X.
ST MO
SDK
LOUD
1 2 3 4 5 6


COM 1
COM 0
FMW12
SK DX
D.A.P.
SEEK A.MEMO
M.S.
R.MONI
M.I.X.
ST MO
SDK
LOUD
1 2 3 4 5 6

Adjustment Procedures

1. Tape Player

(1) Connection

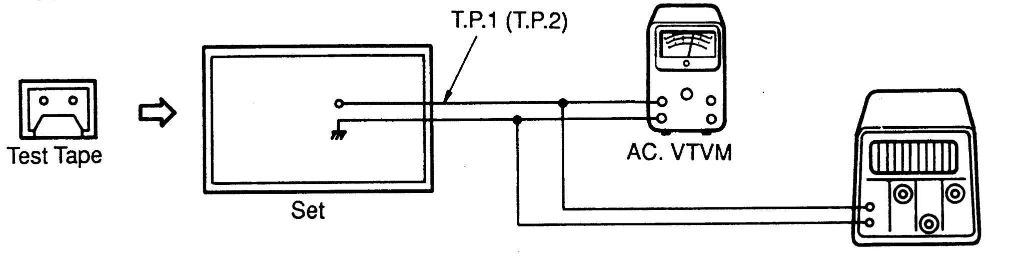

Test Tape
Set
T.P.1 (T.P.2)
AC. VTVM
Frequency Counter

Figure 10

(2) Control Setting

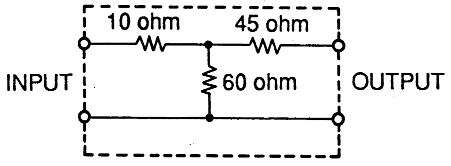
Power Sw. .... ON
Fader Control .... Front
Balance Control .... Mechanical center
Treble/Bass Control .... Mechanical center
Other Sw. .... OFF

(3) Adjustment Procedures

Step	Description	Test Tape	Connection	Test Point	Adjustment Point	Adjustment
1	Head Azimuth Adjustment	MTT-114NB (14kHz)	Figure 10	T.P.1 (L) T.P.2 (R)	Head Azimuth Adjustment Screw (Figure 13)	Adjustment for Max. and same level output at Normal and Reverse positions.
2	Dolby Level Adjustment	MTT-150 (400Hz)	Figure 10	T.P.1 (L) T.P.2 (R)	VR 210 (R) VR 209 (L) (Figure 15)	Adjust for 245mv±1dB at T.P.1 (L) and T.P.2 (R)
3	Tape Speed Adjustment	MTT-111 (3kHz)	Figure 10	T.P.1 (L) or T.P.2 (R)	Tape Speed Adjustment (Figure 14)	Adjust for 2970 to 3090Hz at T.P.1 (T.P.2).

2. SDK Section (7288M/MM Model Only)

(1) Dummy Antenna


10 ohm
45 ohm
60 ohm
INPUT
OUTPUT

For 50 ohm FM Signal Generator

Figure 11

(2) Connection

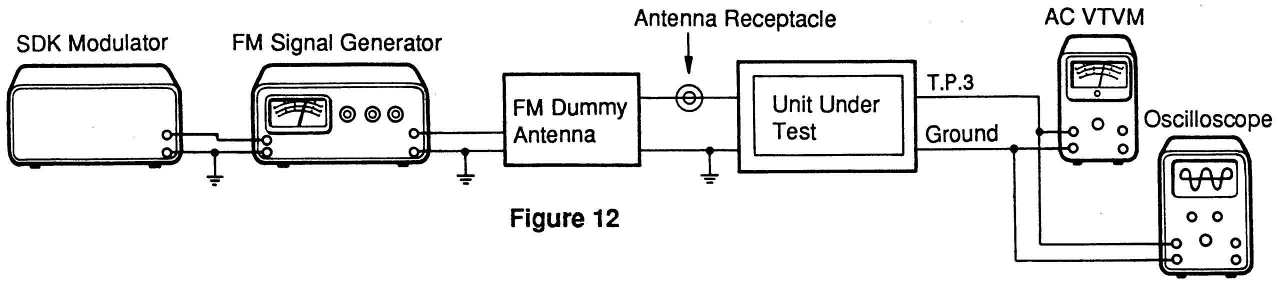

SDK Modulator
FM Signal Generator
Antenna Receptacle
FM Dummy Antenna
Unit Under Test
T.P.3
Ground
AC VTVM
Oscilloscope

Figure 12

(3) Control Setting

Power Switch .... ON
Band Select Switch .... SDK
Fader Control .... Center position
Balance Control .... Mechanical center
Treble/Bass Control .... Mechanical center
Others .... OFF

(4) Adjustment Procedures

Step	Description	Connection	Signal Generator	Dial Control	Adjustment
1	SK Adjustment	Figure 12	98.1 MHz, 26 dB (SK, BK: ON, DK: OFF)	98.1 MHz	Adjust L101 for lighting SK
2	DK Adjustment	Figure 12	98.1 MHz, 72 dB (SK, BK: OFF, DK: ON)	98.1 MHz	Adjust VR101 for max. output at T.P.3.

Adjustment Locations

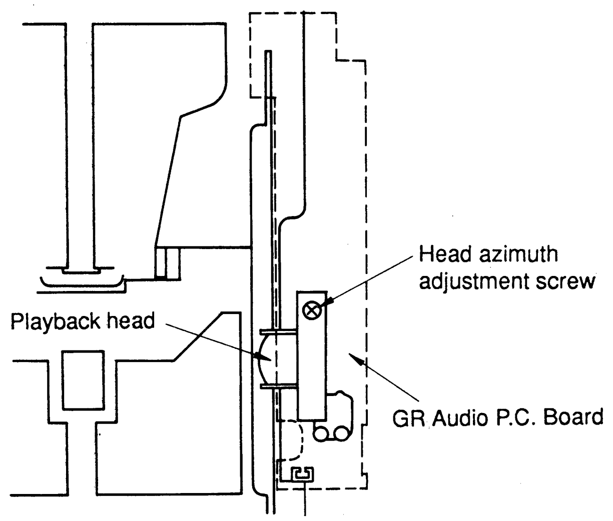

Head azimuth adjustment screw
Playback head
GR Audio P.C. Board

Figure 13

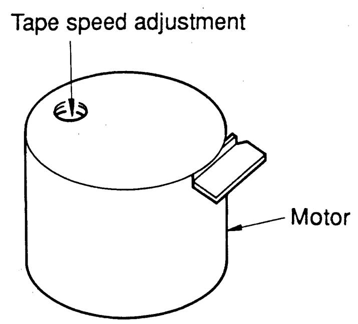

Tape speed adjustment
Motor

Figure 14

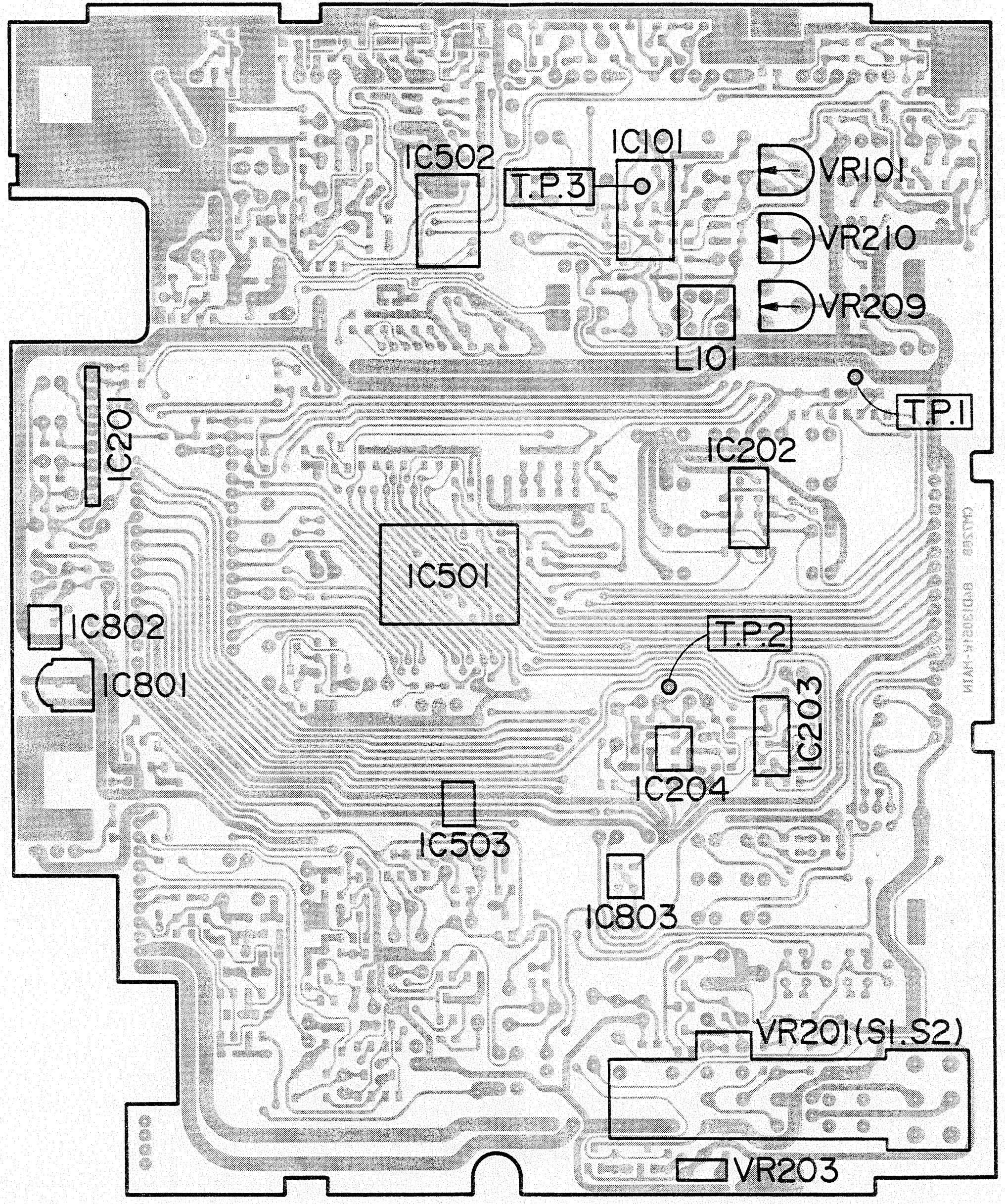

IC502
IC101
T.P.3
VR101
VR210
VR209
L101
T.P.1
IC201
IC202
IC501
IC802
IC801
T.P.2
IC203
IC204
IC503
IC803
VR201(S1.S2)
VR203

Figure 15 Main P. C. Board (Component Side) [7288M model]

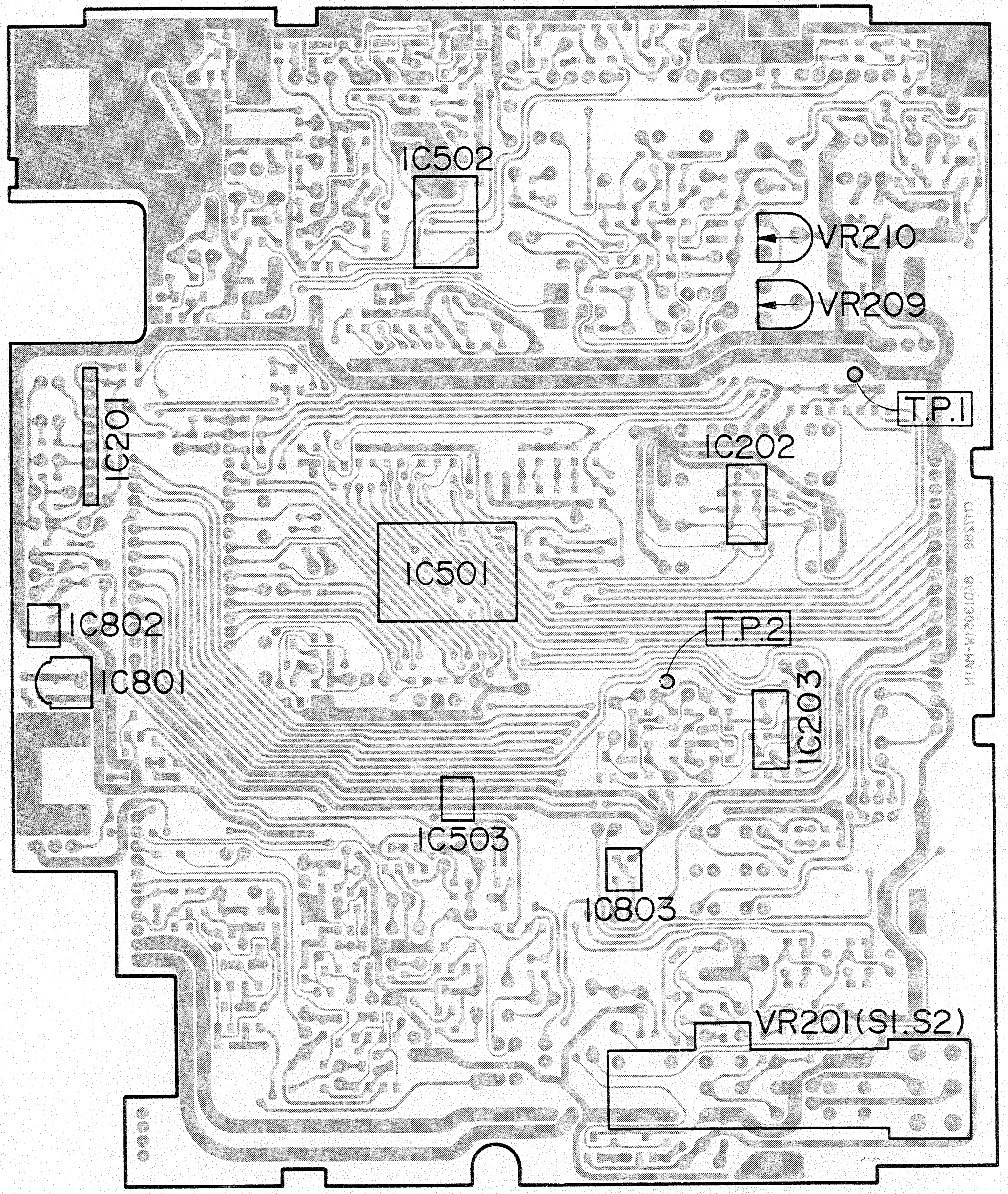
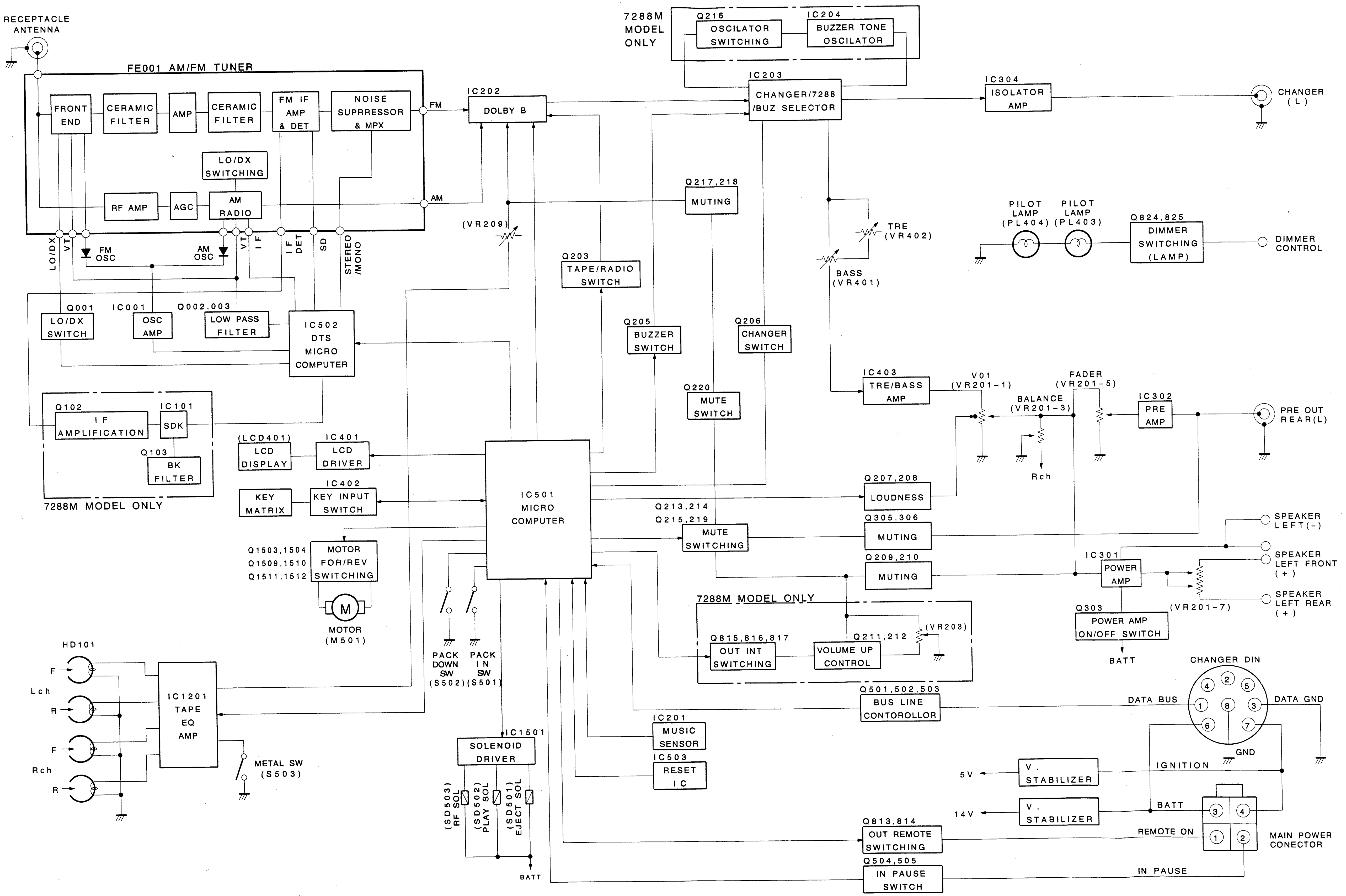
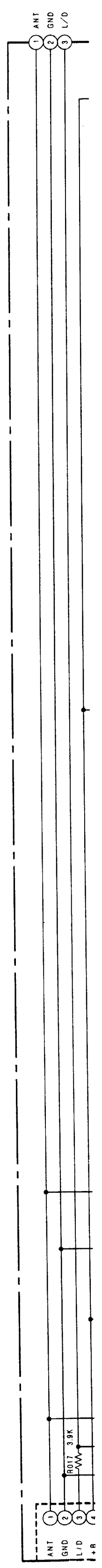

IC502
VR210
VR209
T.P.1
IC201
IC202
IC501
IC802
IC801
T.P.2
IC203
IC503
IC803
VR201(S1.S2)

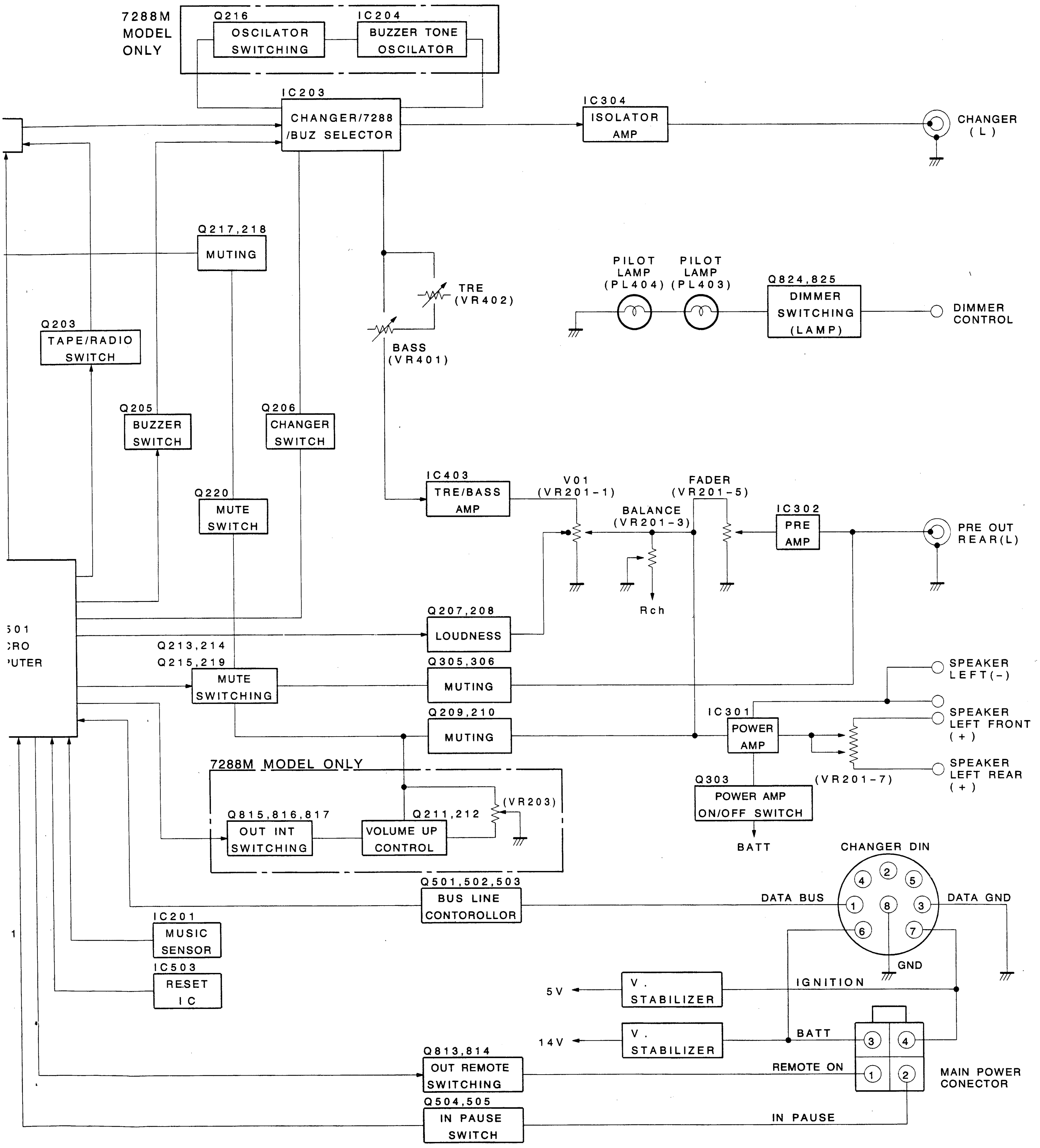
Figure 16 Main P. C. Board (Component Side) [7288L model]

Block Diagram

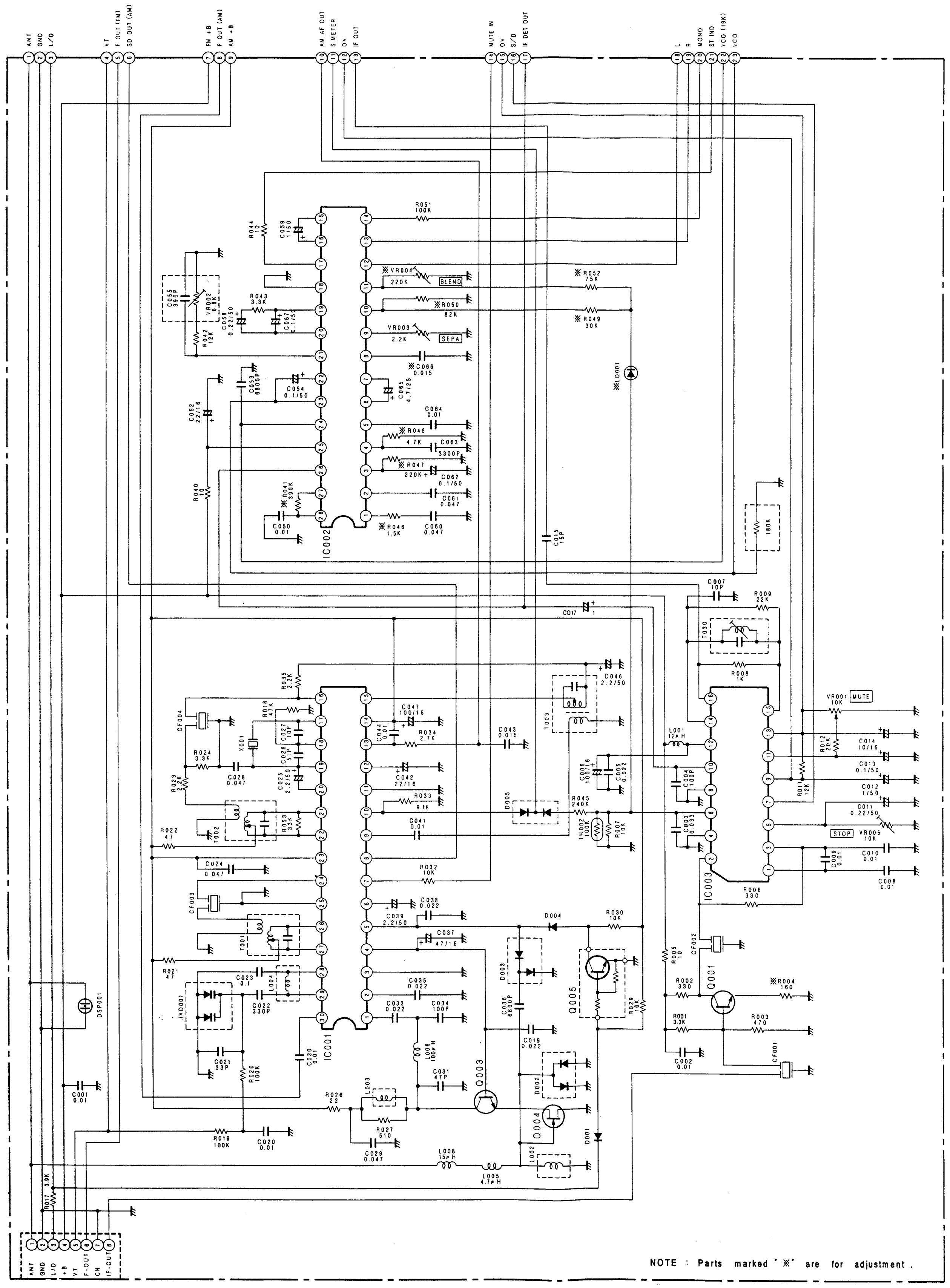

RECEPTACLE ANTENNA
FE001 AM/FM TUNER
FRONT END
CERAMIC FILTER
AMP
CERAMIC FILTER
FM IF AMP & DET
NOISE SUPPRESSOR & MPX
FM
LO/DX SWITCHING
RF AMP
AGC
AM RADIO
AM
LO/DX
VT
FM OSC
AM OSC
VT
IF
IF DET
SD
STEREO /MONO
Q001 LO/DX SWITCH
IC001 OSC AMP
Q002,003 LOW PASS FILTER
IC502 DTS MICRO COMPUTER
Q102 IF AMPLIFICATION
IC101 SDK
Q103 BK FILTER
7288M MODEL ONLY
IC202 DOLBY B
(VR209)
7288M MODEL ONLY
Q216 OSCILATOR SWITCHING
IC204 BUZZER TONE OSCILATOR
IC203 CHANGER/7288 /BUZ SELECTOR
IC304 ISOLATOR AMP
CHANGER (L)
Q217,218 MUTING
Q203 TAPE/RADIO SWITCH
Q205 BUZZER SWITCH
Q206 CHANGER SWITCH
Q220 MUTE SWITCH
TRE (VR402)
BASS (VR401)
PILOT LAMP (PL404)
PILOT LAMP (PL403)
Q824,825 DIMMER SWITCHING (LAMP)
DIMMER CONTROL
IC403 TRE/BASS AMP
V01 (VR201-1)
BALANCE (VR201-3)
FADER (VR201-5)
Rch
IC302 PRE AMP
PRE OUT REAR(L)
(LCD401) LCD DISPLAY
IC401 LCD DRIVER
KEY MATRIX
IC402 KEY INPUT SWITCH
IC501 MICRO COMPUTER
Q207,208 LOUDNESS
Q213,214 Q215,219 MUTE SWITCHING
Q305,306 MUTING
Q209,210 MUTING
SPEAKER LEFT(-)
SPEAKER LEFT FRONT (+)
SPEAKER LEFT REAR (+)
IC301 POWER AMP
(VR201-7)
Q303 POWER AMP ON/OFF SWITCH
BATT
Q1503,1504 Q1509,1510 Q1511,1512 MOTOR FOR/REV SWITCHING
M
MOTOR (M501)
PACK DOWN SW (S502)
PACK IN SW (S501)
7288M MODEL ONLY
Q815,816,817 OUT INT SWITCHING
Q211,212 VOLUME UP CONTROL
(VR203)
CHANGER DIN
Q501,502,503 BUS LINE CONTOROLLOR
DATA BUS
DATA GND
GND
1 2 3 4 5 6 7 8
HD101
F
Lch
R
F
Rch
R
IC1201 TAPE EQ AMP
METAL SW (S503)
IC1501 SOLENOID DRIVER
(SD503) RF SOL
(SD502) PLAY SOL
(SD501) EJECT SOL
BATT
IC201 MUSIC SENSOR
IC503 RESET IC
5V
V. STABILIZER
IGNITION
14V
V. STABILIZER
BATT
Q813,814 OUT REMOTE SWITCHING
REMOTE ON
Q504,505 IN PAUSE SWITCH
IN PAUSE
MAIN POWER CONECTOR

Tuner




7288M MODEL ONLY
Q216
OSCILATOR SWITCHING
IC204
BUZZER TONE OSCILATOR
IC203
CHANGER/7288 /BUZ SELECTOR
IC304
ISOLATOR AMP
CHANGER (L)
Q217,218
MUTING
TRE (VR402)
BASS (VR401)
PILOT LAMP (PL404)
PILOT LAMP (PL403)
Q824,825
DIMMER SWITCHING (LAMP)
DIMMER CONTROL
Q203
TAPE/RADIO SWITCH
Q205
BUZZER SWITCH
Q206
CHANGER SWITCH
Q220
MUTE SWITCH
IC403
TRE/BASS AMP
V01 (VR201-1)
FADER (VR201-5)
BALANCE (VR201-3)
IC302
PRE AMP
PRE OUT REAR(L)
Rch
Q207,208
LOUDNESS
501
CRO
PUTER
Q213,214
Q215,219
MUTE SWITCHING
Q305,306
MUTING
SPEAKER LEFT(-)
Q209,210
MUTING
IC301
POWER AMP
SPEAKER LEFT FRONT (+)
SPEAKER LEFT REAR (+)
(VR201-7)
7288M MODEL ONLY
Q815,816,817
OUT INT SWITCHING
Q211,212
VOLUME UP CONTROL
(VR203)
Q303
POWER AMP ON/OFF SWITCH
BATT
CHANGER DIN
Q501,502,503
BUS LINE CONTOROLLOR
DATA BUS
DATA GND
GND
IC201
MUSIC SENSOR
IC503
RESET IC
5V
V. STABILIZER
IGNITION
14V
V. STABILIZER
BATT
Q813,814
OUT REMOTE SWITCHING
REMOTE ON
MAIN POWER CONECTOR
Q504,505
IN PAUSE SWITCH
IN PAUSE

Tuner Schematic Diagram [AM/FM Tuner : FE001] MB4E701V (77C12381W01)


ANT
GND
L/D
IC001
IC002
IC003
Q001
Q003
Q004
Q005
VR001 MUTE
BLEND
SEPA
STOP

NOTE : Parts marked ' ※ ' are for adjustment .

Schematic Diagram (1/2)

Q001	E	0V	SEEX DX/LO	Q206	E	0V	CHG ON/OFF
	C	4V/0V			C	8.3V/0V	
	B	0V/4.6V			B	0V/5V	
Q002	E	0V	—	Q207	E	0V	LOUD ON/OFF
	C	5.3V			C	0V	
	B	0.6V			B	0V/2.5V	
Q003	E	0.6V	—	Q208	E	0V	LOUD ON/OFF
	C	9.4V			C	0V	
	B	1V			B	0V/2.5V	
Q004	E	0V	FM,MW /LW	Q209	E	0V	MUTE ON/OFF
	C	0V			C	0V	
	B	0.8V/3.5V			B	0.3V/14.2V	
Q005	E	0V	FM/AM	Q210	E	0V	MUTE ON/OFF
	C	0V			C	0V	
	B	8V/0V			B	0.3V/14.2V	
Q006	E	0V	SEEK ON/OFF	●■ Q211	E	0V	SDK ON/OFF
	C	0V/5.5V			C	0V	
	B	4.9V/0V			B	7.6V/0V	
Q007	E	8.6V	FM/AM	●■ Q212	E	0V	SDK ON/OFF
	C	1.4V/8.7V			C	0V	
	B	8.7V/8V			B	7.6V/0V	
Q008	E	0V	FM/AM	Q213	E	0V	MUTE ON/OFF
	C	8.7V/0V			C	0V/6.8V	
	B	0.2V/5V			B	0V/5.1V	
Q009	E	8.6V/0.5V	TUNER/ TAPE	Q214	E	14.2V	MUTE ON/OFF
	C	14.2V			C	0.3V/14.2V	
	B	9.2V/0.9V			B	14.2V/0V	
●▲ Q010	E	14.3V	TUNER/ TAPE	Q215	E	0V	MUTE ON/OFF
	C	14.3V/1V			C	14.2V/0V	
	B	0V/14.3V			B	0V/6.8V	
●▲ Q011	E	0V	TUNER/ TAPE	●■ Q216	E	0V	BUZ ON/OFF
	C	14.2V/0V			C	8.2V/0V	
	B	0V/5V			B	0V/7.5V	
Q012	E	8.6V	FM/AM	Q217	E	0V	MUTE ON/OFF
	C	8.5V/0.1V			C	0V	
	B	7.7V/8.7V			B	0V/13.5V	
●■ Q102	E	1.2V	—	Q218	E	0V	MUTE ON/OFF
	C	5.5V			C	0V	
	B	1.8V			B	0V/13.5V	
●■ Q103	E	0V	—	Q219	E	0V	MUTE ON/OFF
	C	4.2V			C	0V	
	B	0.6V			B	0V	
Q201	E	0V	—	Q220	E	8.4V	TAPE/ TUNER
	C	1.4V			C	0.6V/8.4V	
	B	0V			B	8.3V/0V	
Q203	E	0V	TAPE/ RADIO	Q303	E	0V	POWER ON/OFF
	C	8.2V/0V			C	0V/7.1V	
	B	0V/4.4V			B	14.2V/0.4V	
Q205	E	0V	SDK ON/OFF	Q305	E	0V	MUTE ON/OFF
	C	8.3V			C	0V	
	B	0V			B	0.4V/14.2V	

	IC001	IC201	IC503
1	0V	1.4V	5.1V
2	3.8V	1.4V	5.1V
3	4.7V	0V	0V
4	1.1V	1.4V	
5		0V	
6		0V	
7		4.8V	
8		14.1V	

NOTE
1. All resistance values are in ohms. K = 1,000 M = 1,000,000
2. All capacitance values are in microfarads. $P = \frac{1}{1,000,000}$

Voltage Measuring Conditions

1. Power Supply Voltage	:DC14.4V
2. Measuring Meter	:Digital Multi-Voltmeter
3. Measuring Point Reference	:Between Ground
4. Measuring Conditions	:Tape -- No Bias Tape Tuner--FM 98.1MHz —MW 999KHz --LW 216KHz

MODE;POWER ON/OFF

	IC301	IC302	IC303	IC304	IC403	IC802	IC803
1	14.1V/14.4V	4.2V/0V	4.2V/0V	4.2V/0V	4.2V/0V	13.6V/0V	4.2V/0V
2	6.8V/0V	4.2V/0V	4.2V/0V	4.2V/0V	4.2V/0V	0V	4.2V/0V
3	0V	4.2V/0V	4.2V/0V	4.2V/0V	4.2V/0V	1.2V/0V	4.2V/0V
4	6.8V/0V	0V	0V	0V	0V		4.2V/0V
5	0V/7V	4.2V/0V	4.2V/0V	4.2V/0V	4.2V/0V		—
6	0V	4.2V/0V	4.2V/0V	4.2V/0V	4.2V/0V		—
7	1.3V/0V	4.2V/0V	4.2V/0V	4.2V/0V	4.2V/0V		—
8	1.3V/0V	8.4V/0.9V	8.4V/0.9V	8.4V/0.9V	8.4V/0.9V		8.4V/0.9V
9	1.3V/0V						
10	0V						
11	1.3V/0V						
12	0V						
13	13.7V/0V						
14	6.7V/0V						
15	0V						
16	6.7V/0V						

IC801

1	14.1V
2	8.1V
3	0.7V
4	5.6V
5	5.9V

	E	C	B
Q1501	0V	2.43V	5.1V
Q1502	0V	0.05V	5.1V
Q1503	0V	0.07V	5.1V
Q1504	0V	13.59V	0.44V
Q1507	13.73V	13.62V	12.98V
Q1508	12.14V	12.98V	12.76V
Q1509	13.62V	13.5V	12.84V
Q1510	13.62V	6.9V	13.6V
Q1511	7V	13.5V	6.52V
Q1512	7V	6.9V	7.24V

M501

1	0V
2	13.5V
3	7V
4	13.5V
5	6.9V

●■ IC101

1	0V/3.8V	SK ON/OFF
2	4.9V/0.2V	DK ON/OFF
3	0V	
4	7.1V/0V	DK ON/OFF
5	4.2V	
6	4.2V	
7	8.4V	
8	4.2V	
9	5.5V/4.4V	SK ON/OFF
10	0V	
11	0V	
12	4.3V	
13	5.5V/4.4V	SK ON/OFF
14	4.2V	
15	4.3V	
16	4.3V	
17	4.3V	
18	7.2V/0V	SK ON/OFF
19	3.6V	
20	0V	

IC202

1	4.2V	
2	8.4V	
3	4.2V	
4	4.2V	
5	0V/5V	DLBY ON/OFF
6	4.2V	
7	0.4V	
8	4.2V	
9	4.2V	
10	0.4V	
11	4.2V	
12	8.4V/0V	T/R
13	1.2V	
14	4.2V	
15	0V	
16	4.2V	

IC203

1	0V	
2	4.2V	
3	4.2V	
4	4.2V	
5	0V	
6	0V	
7	0V	
8	0V	
9	0V/7.7V	BUZ ON/OFF
10	0V/8.4V	CHG ON/OFF
11	4.2V	
12	0V	
13	4.2V	
14	0V	
15	4.2V/0V	PWR ON/OFF
16	8.4V	

Q306	E	0V	MUTE ON/OFF	Q813	E	14.5V/14.2V	REMOTE ON/OFF
	C	0V			C	14.5V/14.2V	
	B	0.4V/14.2V			B	13.8V/13.6V	
Q501	E	0V	CHG/ TAPE	Q814	E	0V	REMOTE ON/OFF
	C	5V CLK			C	0V	
	B	0V/CLK			B	5.8V	
Q502	E	5V	CHG/ TAPE	●■ Q815	E	14.2V	OUT INT ON/OFF
	C	5V CLK			C	14.2V/0V	
	B	6.3V/5.9V			B	0V/14.2V	
Q503	E	0V	CHG/ TAPE	●■ Q816	E	0V	OUT INT ON/OFF
	C	12V CLK			C	0V/14.1V	
	B	12V CLK			B	5V/0V	
Q504	E	4.7V/4.3V	IN PAU ON/OFF	●■ Q817	E	0V	OUT INT ON/OFF
	C	0V/4.3V			C	0V/7.7V	
	B	4.65V/0V			B	14.2V/0V	
Q505	E	0V	IN PAU ON/OFF	Q818	E	9.4V/0V	POWER ON/OFF
	C	4.65V/0V			C	14.3V/0.2V	
	B	0V/14V			B	10V/0.2V	
Q801	E	4.5V	POWER ON/OFF	Q819	E	14.3V/14.4V	POWER ON/OFF
	C	5.1V			C	14.3V/0.2V	
	B	5.6V			B	13.6V/14.4V	
Q803	E	5.1V	POWER ON/OFF	Q820	E	0V	POWER ON/OFF
	C	5.1V/0V			C	0V/14.4V	
	B	0V/5.1V			B	4.8V/0V	
Q804	E	0V	POWER ON/OFF	Q821	E	14.3V	POWER ON/OFF
	C	0V/5.1V			C	14.3V/0V	
	B	10.6V/0V			B	13.6V/14.4V	
Q805	E	5.1V	POWER ON/OFF	Q822	E	0V	POWER ON/OFF
	C	4.8V/0V			C	0.1V/14.4V	
	B	0V/5.1V			B	4.9V/0V	
Q806	E	0V	POWER ON/OFF	Q823	E	14.3V	DIMMER ON/OFF
	C	0V/5.1V			C	13V/14.3V	
	B	5.1V/0V			B	14.3V/13.6V	
Q807	E	14.2V/0V	POWER ON/OFF	Q824	E	0V	DIMMER ON/OFF
	C	14.3V/0.4V			C	14.3V/0V	
	B	0.6V/0.4V			B	0.1V/13.6V	
Q808	E	0V	POWER ON/OFF	Q825	E	0V	DIMMER ON/OFF
	C	0.1V/14.5V			C	0.1V/13.6V	
	B	5.7V/0V			B	9.8V/0V	
Q809	E	14.3V	—	Q826	E	14.4V/0.4V	POWER ON/OFF
	C	0V			C	8.4V/0.9V	
	B	13.6V			B	13.8V/0.4V	
Q810	E	0V	—	Q827	E	0V	POWER ON/OFF
	C	14.3V			C	4.6V/0V	
	B	9.4V			B	0V/4.2V	
Q811	E	14.2V/0V	POWER ON/OFF				
	C	0V					
	B	13.5V/0V					
Q812	E	0V	POWER ON/OFF				
	C	0V					
	B	9.6V/0V					

●:For 7288M MODEL ONLY
▲:For 7288L MODEL ONLY
■:For 7288MM MODEL ONLY
Others:Common

●■ IC204 BUZ OFF/ON

1	1.3V/PLS
2	7V/PLS
3	3.2V/PLS
4	0V
5	6.9V/6.5V
6	0.6V/PLS
7	7.6V/PLS
8	8.4V

IC401

1 TO 54	—	
55	CLK	
56	5V/0V	PWR ON/OFF
57	5V/0V	PWR ON/OFF
58	5V/0V	PWR ON/OFF
59	0V	
60	CLK	
61	CLK	
62	CLK	
63	CLK	
64	CLK	

IC402

1	CLK	
2	CLK	
3	CLK	
4	5V	CLK(KEY IN)
5	5V	CLK(KEY IN)
6	5V	CLK(KEY IN)
7	0V	
8	0V	
9	CLK	
10	CLK	
11	CLK	
12	CLK	
13	5V	CLK(KEY IN)
14	CLK	
15	CLK	
16	5V	

IC501

1	PLS	PLAY	33	0V	A.MEM
2	5V/0V	PACK DOWN/OUT	34	*	SDK
3	5V/0V	PLAY/PAU	35	0V	
4	5V/0V	FF REW/OTHR	36	0V	
5	5V/0V	EJCT ON/OTHR	37	0V/5.1V	EJCT ON/OFF
6	5V/0V	CW/CCW	38	CLK	
7	5V/0V	REST OFF/ON	39	0V/5.1V	O MUTE ON/OFF
8	2.08V	CLK 4.19M	40	CLK	
9	2.58V	CLK 4.19M	41	CLK	
10	0V		42	CLK	CMD
11	0V	FF REW/OTHR	43	CLK	
12	5V	PLAY	44	0V	
13	5.1V	FOR	45	CLK	
14	5.1V	PACK IN	46	CLK	
15	0V		47	CLK	
16	4.8V/0V	MUSIC/MUSIC	48	0V/5V	LOUD ON/OFF
17	4.8V/0V	MUSIC/MUSIC	49	0V/5V	LOUD ON/OFF
18	5V/0V	PWR ON/OFF	50	0V	
19	5V/0V	PWR ON/OFF	51	4.5V/0.1V	R/T
20	5V/0V	PWR ON/OFF	52	CLK	CHG DATA OUT
21	5.1V/0V	CDK BUZ ON/OFF	53	0V	
22	5V/0V	CHG ON/OFF	54	0V	
23	5V		55	0V	
24	0V/5V	DOLB ON/OFF	56	0V	
25	CLK		57	5V	
26	0V		58	5V	
27	0V/4.2V	PWR ON/OFF	59	0V/5V	MUTE ON/OFF
28	5V/0V	IGN ON/OFF	60	5V/0V	REM ON/OFF
29	CLK	CHG DATA IN	61	5V/0V	0.INT ON/OFF
30	5V		62	5V/0V	I.INT ON/OFF
31	*	AREA 1	63	5V/0V	I.PAU ON/OFF
32	*	AREA 0	64	0V	

IC502

1	1.1V		25	0V	
2	0V		26	0V/5V	FM/MW.LW
3	5.1V		27	5.1V/0V	FM,LW/MW
4	0V		28	—	
5	2.1V		29	—	
6	5.1V	IGN ON/OFF	30	—	
7	5.1V	IGN ON/OFF	31	—	
8	0V		32	—	
9	5V/0V	MONO ON/OFF	33	—	
10	0V		34	—	
11	0V		35	—	
12	0V		36	—	
13	0V		37	—	
14	CLK		38	—	
15	CLK		39	—	
16	CLK		40	—	
17	CLK		41	—	
18	0V/5V	MUTE ON/OFF	42	0V	
19	5V/0V	SEEK LO/DX	43	0.2V	DK ON/OFF
20	2.82V	XTL 4.5M	44	3.6V	SK ON/OFF
21	2.54V	XTL 4.5M	45	0V/5V	ST ON/OFF
22	0V		46	3.6V/0V	MW・LW/OTHER
23	5V		47	0.8V	
24	5.1V		48	5.1V	

IC1501

1	0V
2	0V
3	7V
4	0V
5	13.8V
6	0V
7	13.8V
8	5.1V
9	0.7V
10	0V

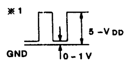
AT PLAY.FOR

CB502

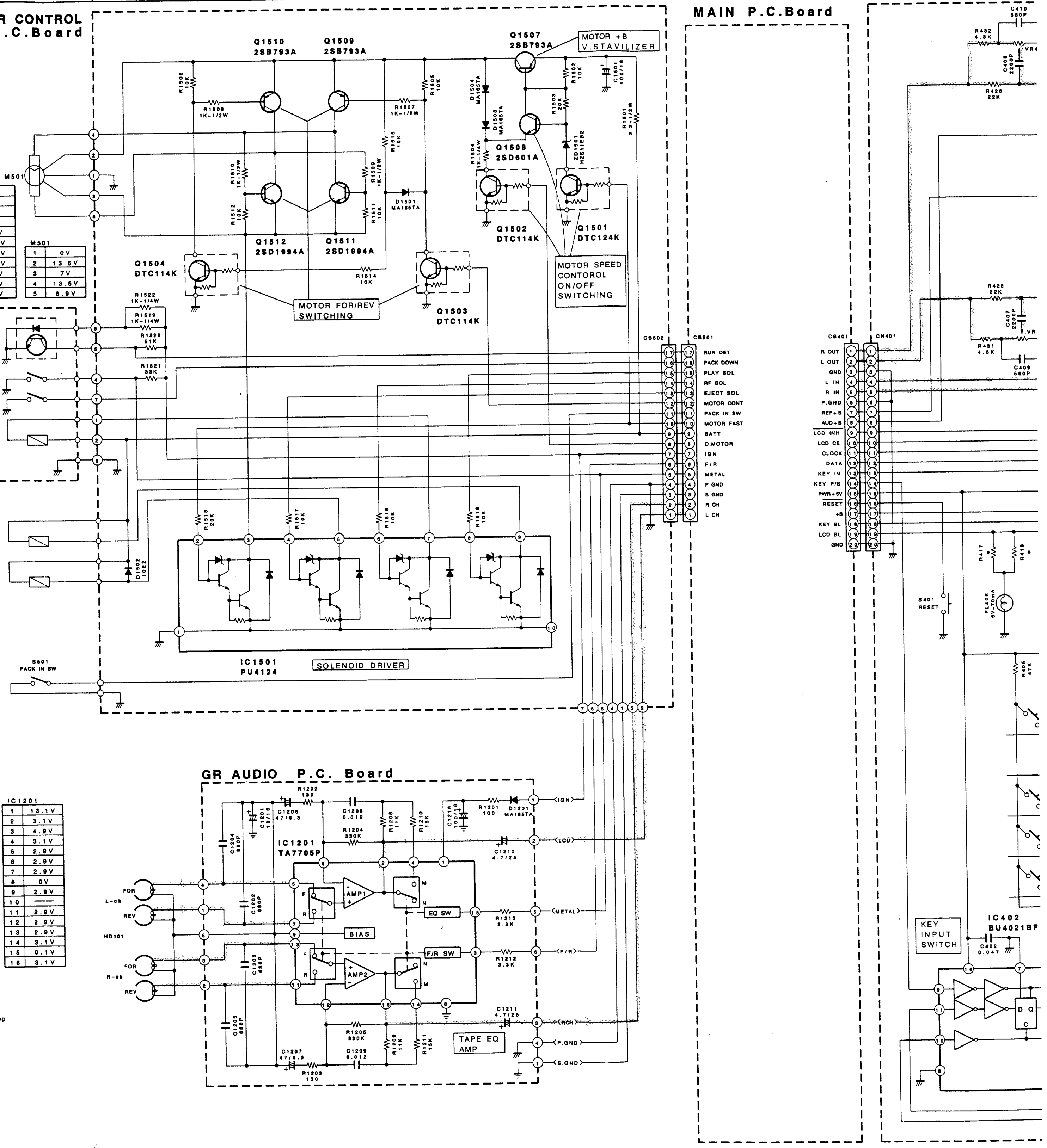
1	0V
2	0V
3	0V
4	0V
5	13.8V
6	5.1V
7	14V
8	5.1V
9	14V
10	5.1V
11	5.1V
12	5.1V
13	0V
14	0V
15	5.1V
16	5.1V
17	※1

IC1201

1	13.1V
2	3.1V
3	4.9V
4	3.1V
5	2.9V
6	2.9V
7	2.9V
8	0V
9	2.9V
10	—
11	2.9V
12	2.9V
13	2.9V
14	3.1V
15	0.1V
16	3.1V


※1
5 -VDD
GND
0 - 1V

ICDS	IC1501 IC1201 IC402
TRANSISTORS (Q)	Q1504 Q1510 Q1512 Q1509 Q1511 Q1503 Q1507 Q1508 Q1502 Q1501


GR CONTROL P.C.Board
MAIN P.C.Board
GR AUDIO P.C. Board
Q1510 2SB793A
Q1509 2SB793A
Q1507 2SB793A
MOTOR +B V.STAVILIZER
Q1508 2SD601A
Q1502 DTC114K
Q1501 DTC124K
Q1512 2SD1994A
Q1511 2SD1994A
Q1504 DTC114K
Q1503 DTC114K
MOTOR FOR/REV SWITCHING
MOTOR SPEED CONTOROL ON/OFF SWITCHING
M501
PT1501 ON2170
S503 METAL SW
S502 PACK DOWN SW
SD503 RF SOL
SD502 PLAY SOL
SD501 EJECT SOL
S501 PACK IN SW
IC1501 PU4124
SOLENOID DRIVER
CB502
CB501
RUN DET
PACK DOWN
PLAY SOL
RF SOL
EJECT SOL
MOTOR CONT
PACK IN SW
MOTOR FAST
BATT
O MOTOR
IGN
F/R
METAL
F GND
S GND
R CH
L CH
IC1201 TA7705P
AMP1
AMP2
BIAS
EQ SW
F/R SW
TAPE EQ AMP
FOR
REV
L-ch
R-ch
HD101
CB401
CN401
R OUT
L OUT
GND
L IN
R IN
P.GND
REF+B
AUD+B
LCD INH
LCD CE
CLOCK
DATA
KEY IN
KEY P/S
PWR+5V
RESET
+B
KEY BL
LCD BL
S401 RESET
KEY INPUT SWITCH
IC402 BU4021BF

7288M/L/MM

M = 1,000,000

= $\frac{1}{1,000,000}$

Voltmeter

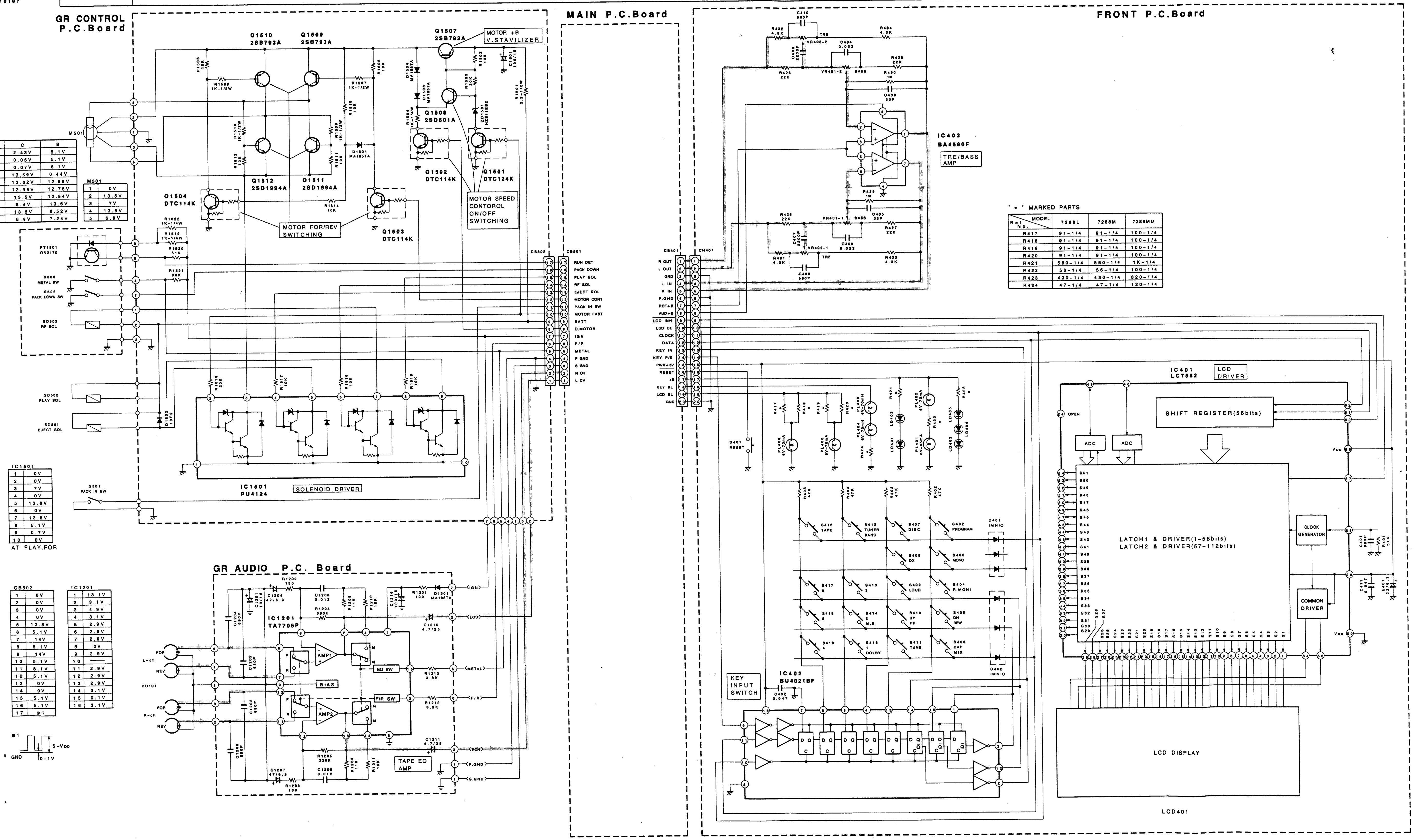
Tape

1MHz

z

z

ICDS		IC1501 IC1201				IC402	IC403	IC401
TRANSISTORS (Q)	Q1504	Q1510 Q1512	Q1509 Q1511	Q1503	Q1507 Q1508 Q1502	Q1501		


GR CONTROL
P.C.Board
MAIN P.C.Board
FRONT P.C.Board
GR AUDIO P.C. Board
Q1510 2SB793A
Q1509 2SB793A
Q1507 2SB793A
MOTOR +B V.STAVILIZER
Q1508 2SD601A
Q1502 DTC114K
Q1501 DTC124K
Q1512 2SD1994A
Q1511 2SD1994A
Q1504 DTC114K
Q1503 DTC114K
MOTOR SPEED CONTOROL ON/OFF SWITCHING
MOTOR FOR/REV SWITCHING
M501
PT1501 ON2170
S503 METAL SW
S502 PACK DOWN SW
SD503 RF SOL
SD502 PLAY SOL
SD501 EJECT SOL
S501 PACK IN SW
IC1501 PU4124
SOLENOID DRIVER
CB502
CB501
RUN DET
PACK DOWN
PLAY SOL
RF SOL
EJECT SOL
MOTOR CONT
PACK IN SW
MOTOR FAST
BATT
O.MOTOR
IGN
F/R
METAL
P GND
S GND
R CH
L CH
CB401
CH401
R OUT
L OUT
GND
L IN
R IN
P.GND
REF+B
AUD+B
LCD INH
LCD CE
CLOCK
DATA
KEY IN
KEY P/S
PWR+5V
RESET
+B
KEY BL
LCD BL
GND
IC1201 TA7705P
AMP1
AMP2
BIAS
EQ SW
F/R SW
TAPE EQ AMP
L-ch
R-ch
FOR
REV
HD101
IGN
LCU
METAL
F/R
RCH
P.GND
S.GND
IC403 BA4560F
TRE/BASS AMP
TRE
BASS
VR401-1
VR401-2
VR402-1
VR402-2
S401 RESET
S416 TAPE
S412 TUNER BAND
S407 DISC
S402 PROGRAM
S408 DX
S403 MONO
S417
S413
S409 LOUD
S404 R.MONI
S418
S414 M.S
S410 UP FF
S405 DN REW
S419
S415 DOLBY
S411 TUNE
S406 DAP MIX
D401 1MN10
D402 1MN10
KEY INPUT SWITCH
IC402 BU4021BF
IC401 LC7582
LCD DRIVER
SHIFT REGISTER(56bits)
ADC
LATCH1 & DRIVER(1-56bits)
LATCH2 & DRIVER(57-112bits)
CLOCK GENERATOR
COMMON DRIVER
OPEN
VDD
Vss
LCD DISPLAY
LCD401

E	C	B
0V	2.43V	5.1V
0V	0.05V	5.1V
0V	0.07V	5.1V
0V	13.59V	0.44V
.73V	13.62V	12.98V
.14V	12.98V	12.76V
.62V	13.5V	12.84V
.62V	6.9V	13.6V
7V	13.5V	6.52V
7V	6.9V	7.24V

M501

1	0V
2	13.5V
3	7V
4	13.5V
5	6.9V

IC1501

1	0V
2	0V
3	7V
4	0V
5	13.8V
6	0V
7	13.8V
8	5.1V
9	0.7V
10	0V

AT PLAY.FOR

CB502

1	0V
2	0V
3	0V
4	0V
5	13.8V
6	5.1V
7	14V
8	5.1V
9	14V
10	5.1V
11	5.1V
12	5.1V
13	0V
14	0V
15	5.1V
16	5.1V
17	※1

IC1201

1	13.1V
2	3.1V
3	4.9V
4	3.1V
5	2.9V
6	2.9V
7	2.9V
8	0V
9	2.9V
10	—
11	2.9V
12	2.9V
13	2.9V
14	3.1V
15	0.1V
16	3.1V

※1
5 -VDD
GND
0-1V

' * ' MARKED PARTS

Ref No. \ MODEL	7288L	7288M	7288MM
R417	91-1/4	91-1/4	100-1/4
R418	91-1/4	91-1/4	100-1/4
R419	91-1/4	91-1/4	100-1/4
R420	91-1/4	91-1/4	100-1/4
R421	560-1/4	560-1/4	1K-1/4
R422	56-1/4	56-1/4	100-1/4
R423	430-1/4	430-1/4	820-1/4
R424	47-1/4	47-1/4	120-1/4

Schematic Diagram (2/2)

IC' S: IC101 IC001 IC503 IC502 IC803 IC201 IC802 IC501 IC202 IC801

TRANSISTORS (Q): Q102 Q103 Q001 Q012 Q005 Q008 Q007 Q002 Q218 Q009 Q011 Q003 Q006 Q217 Q010 Q004 Q201 Q826 Q213 Q808 Q220 Q203 Q214 Q215 Q219 Q807 Q206 Q205 Q207 Q208 Q50

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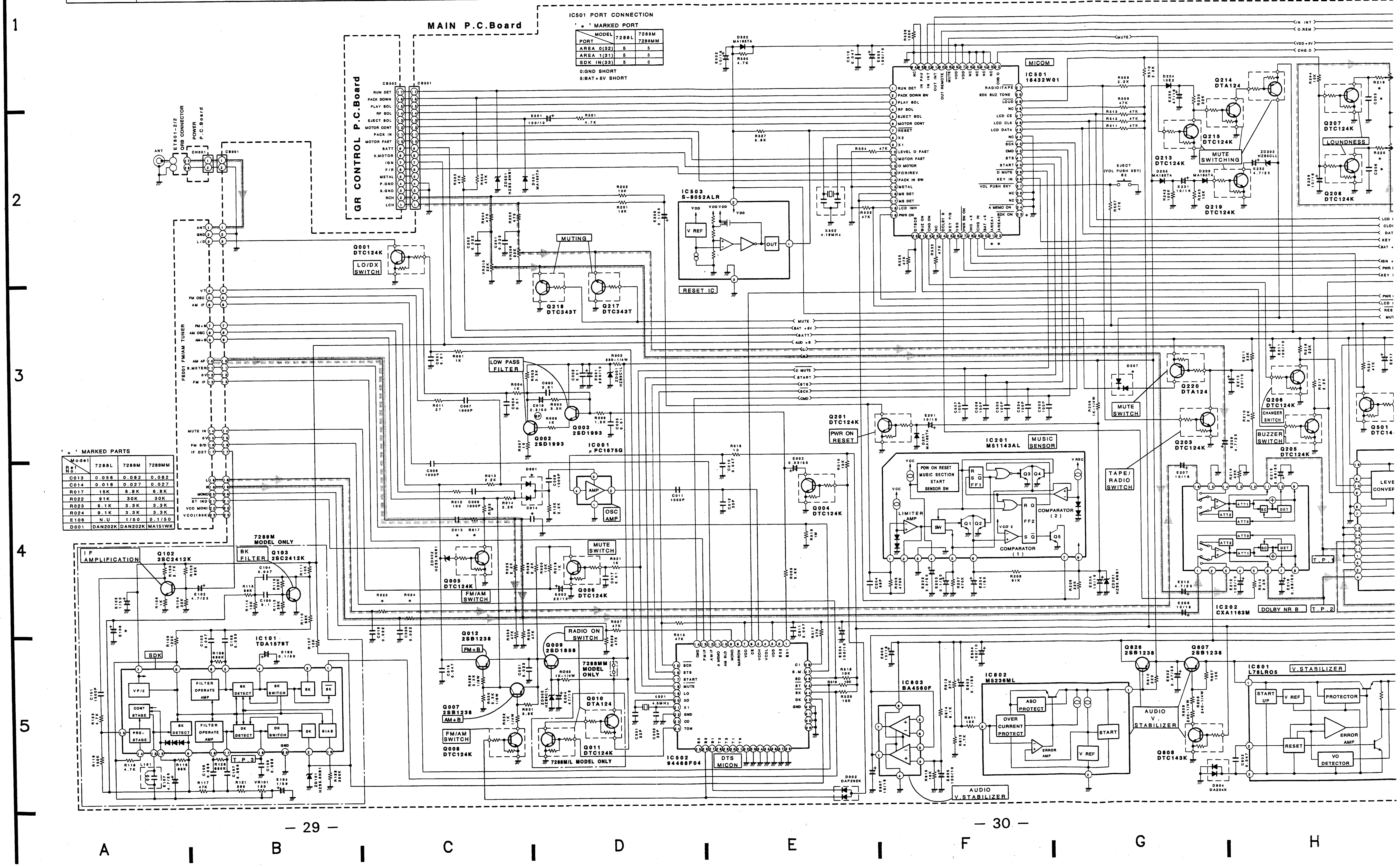

MAIN P.C.Board
GR CONTROL P.C.Board
FE001 FM/AM TUNER
POWER P.C.Board
ORB CONNECTOR
ANT
LO/DX SWITCH
MUTING
LOW PASS FILTER
RESET IC
IC503 S-8052ALR
IC001 μPC1675G
OSC AMP
MUTE SWITCH
FM/AM SWITCH
RADIO ON SWITCH
7288M MODEL ONLY
7288MM MODEL ONLY
7288M/L MODEL ONLY
IF AMPLIFICATION
BK FILTER
Q102 2SC2412K
Q103 2SC2412K
IC101 TDA1579T
SDK
T.P.3
IC502 94468F04
DTS MICON
IC501 16432W01
MICOM
PWR ON RESET
IC201 M51143AL
MUSIC SENSOR
LIMITER AMP
COMPARATOR (1)
COMPARATOR (2)
TAPE/RADIO SWITCH
IC202 CXA1163M
DOLBY NR B
T.P.1
T.P.2
MUTE SWITCHING
LOUDNESS
CHANGER SWITCH
BUZZER SWITCH
IC803 BA4560F
IC802 M5236ML
AUDIO V.STABILIZER
IC801 L78LR05
V.STABILIZER
Q826 2SB1238
Q807 2SB1238
Q808 DTC143K
LEVEL CONVERTER
1
2
3
4
5
A
B
C
D
E
F
G
H

IC501 PORT CONNECTION

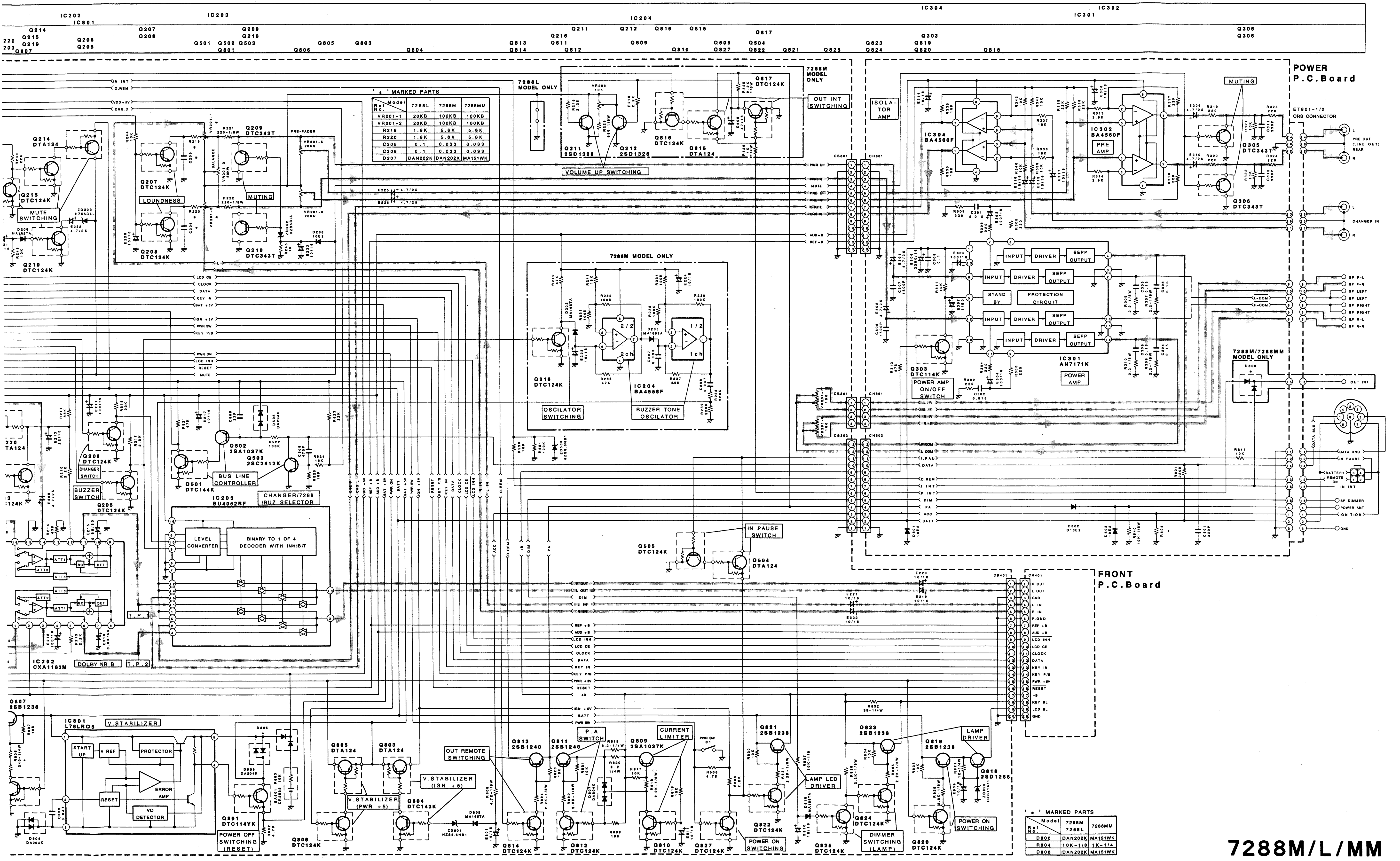
' * ' MARKED PORT

MODEL / PORT	7288L	7288M 7288MM
AREA 0(32)	5	5
AREA 1(31)	5	5
SDK IN(33)	5	0

0:GND SHORT
5:BAT+5V SHORT

' * ' MARKED PARTS

Model / Ref No.	7288L	7288M	7288MM
C013	0.056	0.082	0.082
C014	0.018	0.027	0.027
R017	15K	6.8K	6.8K
R022	91K	30K	30K
R023	9.1K	3.3K	3.3K
R024	9.1K	3.3K	3.3K
E106	N.U	1/50	0.1/50
D001	DAN202K	DAN202K	MA151WK


IC202
IC801
IC203
IC204
IC304
IC302
IC301
POWER P.C.Board
FRONT P.C.Board
7288L MODEL ONLY
7288M MODEL ONLY
7288M MODEL ONLY
7288M/7288MM MODEL ONLY
VOLUME UP SWITCHING
OUT INT SWITCHING
ISOLATOR AMP
MUTING
PRE AMP
IC304 BA4560F
IC302 BA4560F
Q305 DTC343T
Q306 DTC343T
PRE OUT (LINE OUT) REAR
CHANGER IN
ET801-1/2 QRB CONNECTOR
INPUT
DRIVER
SEPP OUTPUT
STAND BY
PROTECTION CIRCUIT
IC301 AN7171K
POWER AMP
Q303 DTC114K
POWER AMP ON/OFF SWITCH
SP F-L
SP F-R
SP LEFT
SP RIGHT
SP R-L
SP R-R
OUT INT
DATA GND
IN PAUSE
BATTERY
REMOTE ON
IN INT
SP DIMMER
POWER ANT
IGNITION
GND
Q211 2SD1328
Q212 2SD1328
Q216 DTC124K
Q815 DTA124
Q817 DTC124K
Q214 DTA124
Q215 DTC124K
MUTE SWITCHING
Q219 DTC124K
Q207 DTC124K
LOUDNESS
Q208 DTC124K
Q209 DTC343T
Q210 DTC343T
MUTING
BALANCE
PRE-FADER
7288M MODEL ONLY
Q216 DTC124K
IC204 BA4558F
OSCILATOR SWITCHING
BUZZER TONE OSCILATOR
Q220 DTA124
Q206 DTC124K
CHANGER SWITCH
BUZZER SWITCH
Q205 DTC124K
Q501 DTC144K
Q502 2SA1037K
Q503 2SC2412K
BUS LINE CONTROLLER
CHANGER/7288 /BUZ SELECTOR
IC203 BU4052BF
LEVEL CONVERTER
BINARY TO 1 OF 4 DECODER WITH INHIBIT
IN PAUSE SWITCH
Q505 DTC124K
Q504 DTA124
IC202 CXA1163M
DOLBY NR B
T.P.1
T.P.2
ATT1
ATT2
ATT3
Q807 2SB1236
IC801 L78LR05
V.STABILIZER
START UP
V REF
PROTECTOR
ERROR AMP
RESET
VO DETECTOR
Q801 DTC114YK
POWER OFF SWITCHING (RESET)
Q805 DTA124
Q803 DTA124
Q806 DTC124K
V.STABILIZER (PWR +5)
Q804 DTC143K
V.STABILIZER (IGN +5)
OUT REMOTE SWITCHING
Q813 2SB1240
Q814 DTC124K
Q811 2SB1240
Q812 DTC124K
P.A SWITCH
Q809 2SA1037K
CURRENT LIMITER
Q810 DTC124K
Q827 DTC124K
POWER ON SWITCHING
Q821 2SB1238
Q822 DTC124K
LAMP LED DRIVER
Q823 2SB1238
Q824 DTC124K
Q825 DTC124K
DIMMER SWITCHING (LAMP)
Q819 2SB1238
Q818 2SD1266
LAMP DRIVER
Q820 DTC124K
POWER ON SWITCHING
CB801
CH801
CB301
CH301
CB302
CH302
CB401
CH401

' * ' MARKED PARTS

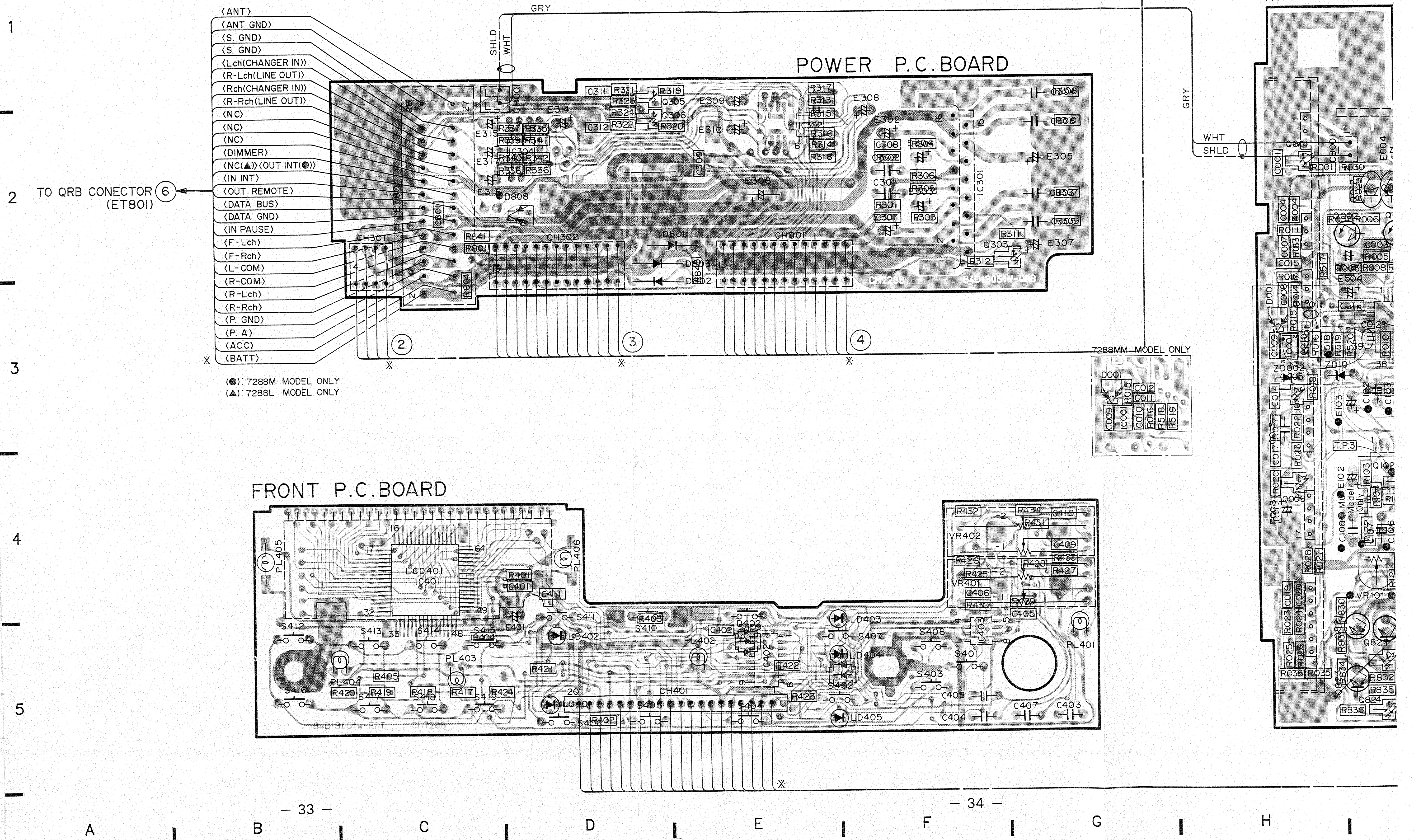
Ref No. \ Model	7288L	7288M	7288MM
VR201-1	20KB	100KB	100KB
VR201-2	20KB	100KB	100KB
R219	1.8K	5.6K	5.6K
R220	1.8K	5.6K	5.6K
C205	0.1	0.033	0.033
C206	0.1	0.033	0.033
D207	DAN202K	DAN202K	MA151WK

' * ' MARKED PARTS

Ref No. \ Model	7288M 7288L	7288MM
D806	DAN202K	MA151WK
R804	10K-1/8	1K-1/4
D808	DAN202K	MA151WK

7288M/L/MM

Parts Layout on P. C. Boards and Wiring Diagram (1/2)


POWER P.C.BOARD
FRONT P.C.BOARD
MAIN P.C.BO
〈ANT〉
〈ANT GND〉
〈S. GND〉
〈S. GND〉
〈Lch(CHANGER IN)〉
〈R-Lch(LINE OUT)〉
〈Rch(CHANGER IN)〉
〈R-Rch(LINE OUT)〉
〈NC〉
〈NC〉
〈NC〉
〈DIMMER〉
〈NC(▲)〉〈OUT INT(●)〉
〈IN INT〉
〈OUT REMOTE〉
〈DATA BUS〉
〈DATA GND〉
〈IN PAUSE〉
〈F-Lch〉
〈F-Rch〉
〈L-COM〉
〈R-COM〉
〈R-Lch〉
〈R-Rch〉
〈P. GND〉
〈P. A〉
〈ACC〉
〈BATT〉
TO QRB CONECTOR ⑥ (ET801)
(●): 7288M MODEL ONLY
(▲): 7288L MODEL ONLY
GRY
SHLD
WHT
②
③
④
7288MM MODEL ONLY
ET801
CH301
CH302
CH801
CH401
IC301
IC401
LCD401
IC402
IC403
D801
D808
Q303
Q305
Q306
VR401
VR402
VR101
PL401
PL402
PL403
PL404
PL405
PL406
LD402
LD403
LD404
LD405
CM7288
84D13051W-QRB
84D13051W-FRT
1
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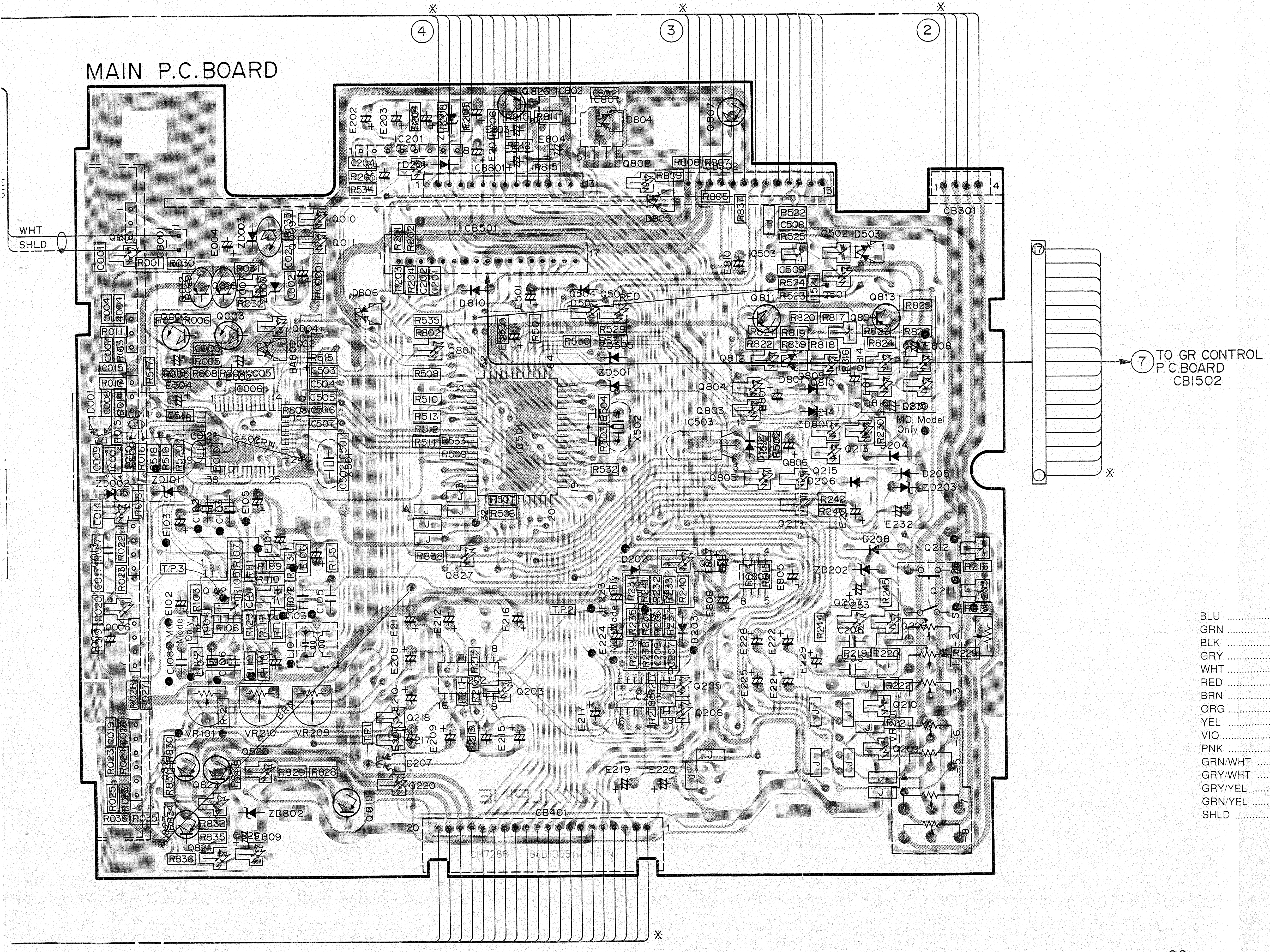
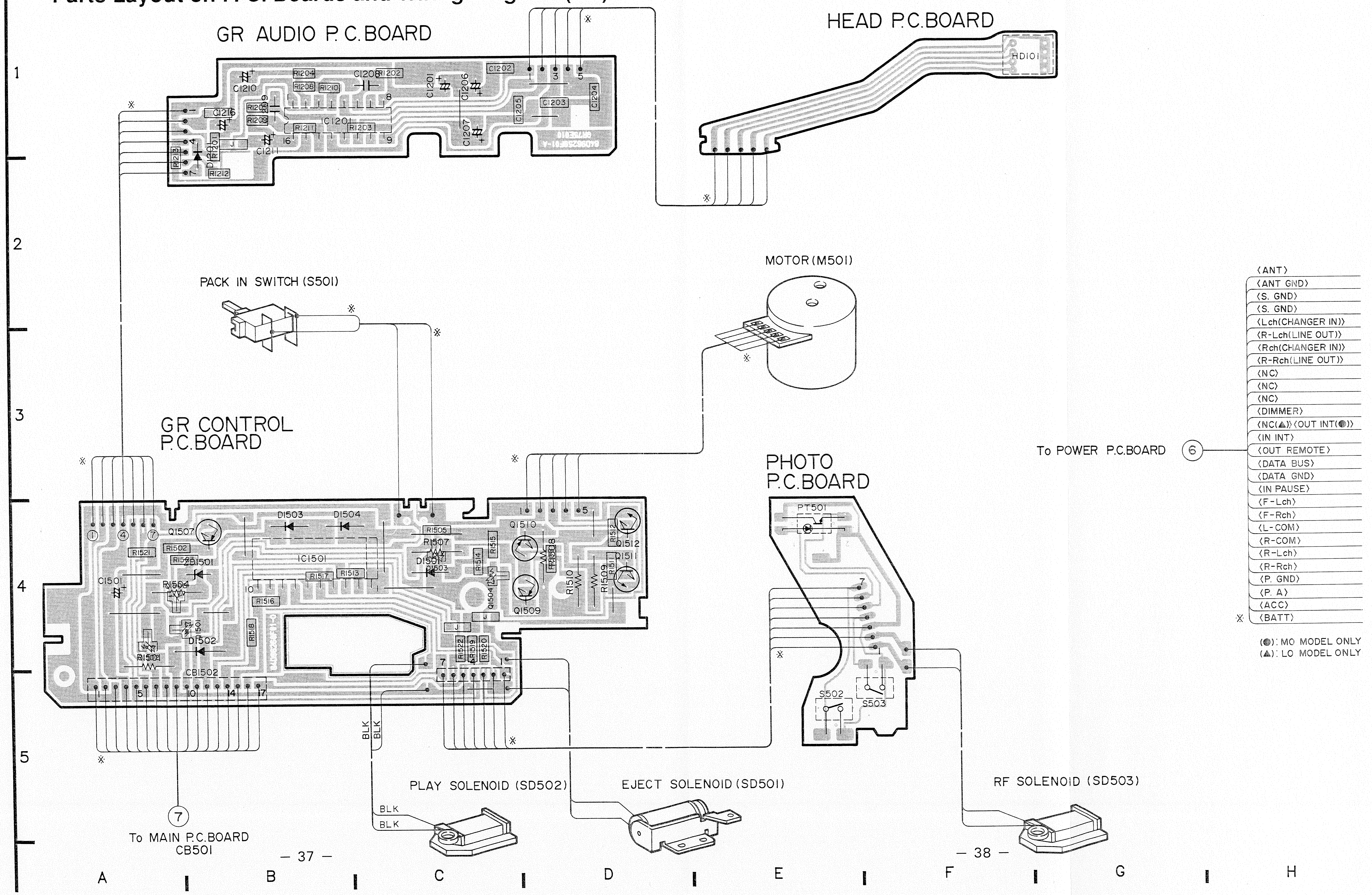
C
D
E
F
G
H

MAIN P.C.BOARD

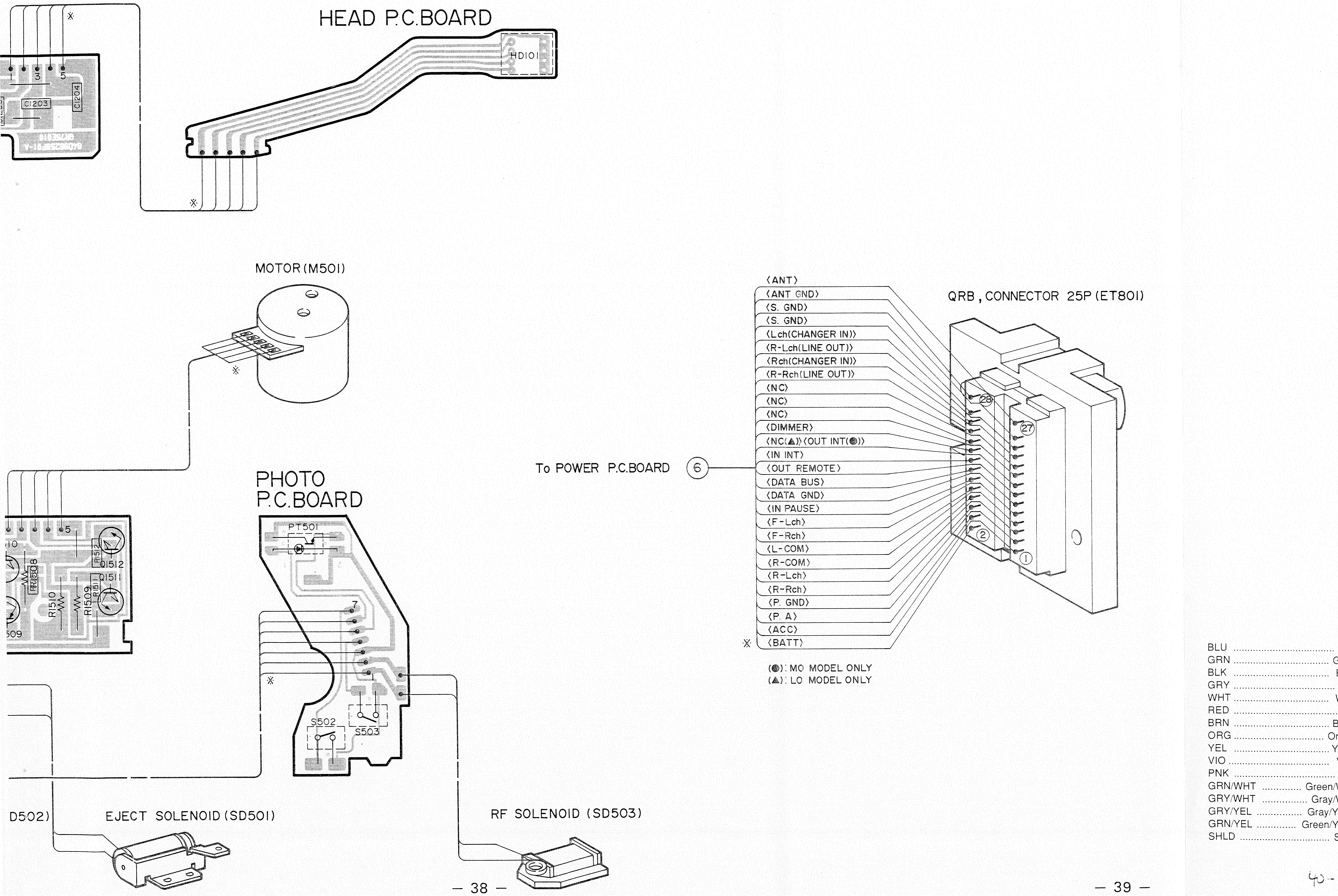

④
③
②
⑦ TO GR CONTROL
P.C.BOARD
CB1502
WHT
SHLD
CB001
CB301
CB401
CB501
CB801
CB802
IC201
IC203
IC501
IC502
IC503
IC801
X502
VR101
VR210
VR209
T.P.1
T.P.2
T.P.3
MO Model Only
GRN.
BRN
ALPINE
CM7288
※

BLU	Blue
GRN	Green
BLK	Black
GRY	Gray
WHT	White
RED	Red
BRN	Brown
ORG	Orange
YEL	Yellow
VIO	Violet
PNK	Pink
GRN/WHT	Green/White
GRY/WHT	Gray/White
GRY/YEL	Gray/Yellow
GRN/YEL	Green/Yellow
SHLD	Shield

Parts Layout on P. C. Boards and Wiring Diagram (2/2)


GR AUDIO P.C.BOARD
HEAD P.C.BOARD
HD101
C1210
R1204
R1206
R1210
C1208
R1202
C1201
C1206
C1202
C1205
C1203
C1204
C1207
C1216
R1208
R1209
R1205
IC1201
R1211
R1203
C1211
D1201
R1201
R1213
R1212
J
1
4
3
5
8
9
16
※
PACK IN SWITCH (S501)
MOTOR (M501)
GR CONTROL P.C.BOARD
PHOTO P.C.BOARD
PT501
S502
S503
D1503
D1504
Q1507
R1502
R1521
R1503
ZD1501
IC1501
R1517
R1513
R1505
R1507
D1501
D1503
R1514
R1515
Q1510
R1508
R1512
Q1512
Q1511
R1511
R1510
R1509
Q1504
Q1509
C1501
R1504
R1516
R1518
D1501
D1502
R1501
CB1502
R1522
R1519
R1520
J
①
④
⑦
1
5
7
10
14
17
BLK
BLK
PLAY SOLENOID (SD502)
EJECT SOLENOID (SD501)
RF SOLENOID (SD503)
BLK
BLK
⑦
To MAIN P.C.BOARD CB501
To POWER P.C.BOARD
⑥
〈ANT〉
〈ANT GND〉
〈S. GND〉
〈S. GND〉
〈Lch(CHANGER IN)〉
〈R-Lch(LINE OUT)〉
〈Rch(CHANGER IN)〉
〈R-Rch(LINE OUT)〉
〈NC〉
〈NC〉
〈NC〉
〈DIMMER〉
〈NC(▲)〉〈OUT INT(●)〉
〈IN INT〉
〈OUT REMOTE〉
〈DATA BUS〉
〈DATA GND〉
〈IN PAUSE〉
〈F-Lch〉
〈F-Rch〉
〈L-COM〉
〈R-COM〉
〈R-Lch〉
〈R-Rch〉
〈P. GND〉
〈P. A〉
〈ACC〉
※ 〈BATT〉
(●): MO MODEL ONLY
(▲): LO MODEL ONLY
1
2
3
4
5
A
B
C
D
E
F
G
H

ram (2/2)


HEAD P.C.BOARD
HD101
C1203
C1204
1
3
5
※
MOTOR (M501)
※
PHOTO P.C.BOARD
PT501
7
1
S502
S503
※
10
5
R1508
R1510
R1509
R1512
R1511
Q1512
Q1511
509
D502)
EJECT SOLENOID (SD501)
RF SOLENOID (SD503)
To POWER P.C.BOARD
⑥
〈ANT〉
〈ANT GND〉
〈S. GND〉
〈S. GND〉
〈Lch(CHANGER IN)〉
〈R-Lch(LINE OUT)〉
〈Rch(CHANGER IN)〉
〈R-Rch(LINE OUT)〉
〈NC〉
〈NC〉
〈NC〉
〈DIMMER〉
〈NC(▲)〉〈OUT INT(●)〉
〈IN INT〉
〈OUT REMOTE〉
〈DATA BUS〉
〈DATA GND〉
〈IN PAUSE〉
〈F-Lch〉
〈F-Rch〉
〈L-COM〉
〈R-COM〉
〈R-Lch〉
〈R-Rch〉
〈P. GND〉
〈P. A〉
〈ACC〉
※ 〈BATT〉
(●): MO MODEL ONLY
(▲): LO MODEL ONLY
QRB, CONNECTOR 25P (ET801)
㉘
㉗
②
①

BLU	Blue
GRN	Green
BLK	Black
GRY	Gray
WHT	White
RED	Red
BRN	Brown
ORG	Orange
YEL	Yellow
VIO	Violet
PNK	Pink
GRN/WHT	Green/White
GRY/WHT	Gray/White
GRY/YEL	Gray/Yellow
GRN/YEL	Green/Yellow
SHLD	Shield

40-42 leeg

Electrical Parts List

Resistor:Carbon resistors under 1/4 watts are not mentioned in the parts list. please confirm them by schematic diagram.
Capacitor: μF-microfarads. pF-picofarads

Abbreviations

CAP.-Capacitor
CF.-Carbon Film
ELY.-Electrolytic
MF.-Metal Film
MO.-Metal Oxide Film
PP.-Polypropylene
TAN.-Tantalum
CER.-Ceramic
CP.-Chip
LED.-Light Emitting Diode
MIC.-Mica
MYL.-Mylar
SOL.-Solid
ZEN.-Zenner

	Symbol No.	Part No.	Description		
	Main P.C. Board				
	IC's				
	IC001	51T96030F01	μPC1675G		
●	IC101	51T15655W02	TDA1579T		
■	IC101	51T15655W02	TDA1579T		
	IC201	51T67915F01	M51143AL		
	IC202	51T16466W02	CXA1163M		
	IC203	51T15270W01	BU4052BF		
●	IC204	51T94121F01	BA4558F		
■	IC204	51T94121F01	BA4558F		
	IC501	51T16432W01	16432W01		
	IC502	51T94468F04	94468F04		
●	IC503	51T92166F01	S-8052ALR		
▲	IC503	51T92166F01	S-8052ALR		
■	IC503	51T95014F05	S-8052ALR		
	IC801	51T15268W03	L78LR05BFA		
	IC802	51T90890F01	M5236ML		
	IC803	51T92001F01	BA4560F		
	Transistors				
	Q001	48T62967F03	CP.. DTC124K		
	Q002	48T90181F05	2SD1993		
	Q003	48T90181F05	2SD1993		
	Q004	48T62967F03	CP.. DTC124K		
	Q005	48T62967F03	CP.. DTC124K		
	Q006	48T62967F03	CP.. DTC124K		
	Q007	48T84234F03	2SB1238		
	Q008	48T62967F03	CP.. DTC124K		
	Q009	48T83415F03	2SD1858		
●	Q010	48T62966F03	CP.. DTA124		
▲	Q010	48T62966F03	CP.. DTA124		
●	Q011	48T62967F03	CP.. DTC124		
▲	Q011	48T62966F03	CP.. DAT124		
	Q012	48T84234F03	2SB1238		
●	Q102	48T63417F01	CP.. 2SC2412K		
■	Q102	48T63417F01	CP.. 2SC2412K		
●	Q103	48T63417F01	CP.. 2SC2412K		
■	Q103	48T63417F01	CP.. 2SC2412K		
	Q201	48T62967F03	CP.. DTC124K		
	Q203	48T62967F03	CP.. DTC124K		
	Q205	48T62967F03	CP.. DTC124K		
	Q206	48T62967F03	CP.. DTC124K		
	Q207	48T62967F03	CP.. DTC124K		
	Q208	48T62967F03	CP.. DTC124K		
	Q209	48T62967F33	CP.. DTC343T		
	Q210	48T62967F33	CP.. DTC343T		
●	Q211	48T63788F04	CP.. 2SD1328		
■	Q211	48T63788F04	CP.. 2SD1328		
●	Q212	48T63788F04	CP.. 2SD1328		
■	Q212	48T63788F04	CP.. 2SD1328		
	Q213	48T62967F03	CP.. DTC124K		
	Q214	48T62966F03	CP.. DTA124		
	Q215	48T62967F03	CP.. DTC124K		
●	Q216	48T62967F03	CP.. DTC124K		
■	Q216	48T62967F03	CP.. DTC124K		
	Q217	48T62967F33	CP.. DTC343T		
	Q218	48T62967F33	CP.. DTC343T		
	Q219	48T62967F03	CP.. DTC124K		
	Q220	48T62966F03	CP.. DTA124		
	Q501	48T62967F04	CP.. DTC144K		
	Q502	48T63420F03	CP.. 2SA1037K		
	Q503	48T63417F01	CP.. 2SC2412K		
	Q504	48T62966F03	CP.. DTA124		
	Q505	48T62967F03	CP.. DTC124K		
	Q801	48T62967F06	CP.. DTC114YK		
	Q803	48T62966F03	CP.. DTA124		
	Q804	48T62967F01	CP.. DTC143K		
	Q805	48T62966F03	CP.. DTA124		
	Q806	48T62967F03	CP.. DTC124K		
	Q807	48T84234F03	2SB1238		
	Q808	48T62967F01	CP.. DTC143K		
	Q809	48T63420F03	CP.. 2SA1037K		
	Q810	48T62967F03	CP.. DTC124K		
	Q811	48T84238F03	2SB1240		
	Q812	48T62967F03	CP.. DTC124K		
	Q813	48T84238F03	2SB1240		
	Q814	48T62967F03	CP.. DTC124K		
●	Q815	48T62966F03	CP.. DTA124		
■	Q815	48T62966F03	CP.. DTA124		
●	Q816	48T62967F03	CP.. DTC124K		

Note : ● ; 7288M Model Only　▲ ; 7288L Model Only　Others ; Common
■ ; 7288MM Model Only

	Symbol No.	Part No.	Description		
■	Q816	48T62967F03	CP., DTC124K		
●	Q817	48T62967F03	CP., DTC124K		
■	Q817	48T62967F03	CP., DTC124K		
	Q818	48T56031F01	2SD1266		
	Q819	48T84234F03	2SB1238		
	Q820	48T62967F03	CP., DTC124K		
	Q821	48T84234F03	2SB1238		
	Q822	48T62967F03	CP., DTC124K		
	Q823	48T84234F03	2SB1238		
	Q824	48T62967F03	CP., DTC124K		
	Q825	48T62967F03	CP., DTC124K		
	Q826	48T84234F03	2SB1238		
	Q827	48T62967F03	CP., DTC124K		
Diodes					
●	D001	48T63462F01	CP., DAN202K		
▲	D001	48T63462F01	CP., DAN202K		
■	D001	48T52446F01	CP., MA151WK		
	D002	48T63463F01	CP., DAP202K		
	D201	48T44813F01	MA165TA		
	or	48T68828F01	1SS133		
●	D202	48T44813F01	MA165TA		
●	or	48T68828F01	1SS133		
■	D202	48T44813F01	MA165TA		
■	or	48T68828F01	1SS133		
●	D203	48T44813F01	MA165TA		
●	or	48T68828F01	1SS133		
■	D203	48T44813F01	MA165TA		
■	or	48T68828F01	1SS133		
	D204	48C40235G02	10E2		
	D205	48T44813F01	MA165TA		
	or	48T68828F01	1SS133		
	D206	48T44813F01	MA165TA		
	or	48T68828F01	1SS133		
●	D207	48T63462F01	CP., DAN202K		
▲	D207	48T63462F01	CP., DAN202K		
■	D207	48T52446F01	CP., MA151WK		
	D208	48C40235G02	10E2		
	D501	48T44813F01	MA165TA		
	or	48T68828F01	1SS133		
	D502	48T44813F01	MA165TA		
	or	48T68828F01	1SS133		
	D503	48T64134F01	CP., DA204K		
	D804	48T64134F01	CP., DA204K		
	D805	48T64134F01	CP., DA204K		
	D806	48T63462F01	CP., DAN202K		
	D807	48T64134F01	CP., DA204K		

	Symbol No.	Part No.	Description		
	D809	48T44813F01	MA165TA		
	or	48T68828F01	1SS133		
	D810	48T44813F01	MA165TA		
	or	48T68828F01	1SS133		
	ZD001	48T83128F25	ZEN., HZS9C1L		
	ZD002	48T90517F15	ZEN., HZS3.9NB1		
	ZD003	48T83128F25	ZEN., HZS9C1L		
●	ZD101	48T90517F26	ZEN., HZS5.6NB1		
■	ZD101	48T90517F26	ZEN., HZS5.6NB1		
	ZD201	48T90517F26	ZEN., HZS5.6NB1		
	ZD202	48T91071F12	ZEN., HZS5CLL		
	ZD203	48T91071F12	ZEN., HZS5CLL		
	ZD501	48T90517F26	ZEN., HZS5.6NB1		
	ZD505	48T90517F26	ZEN., HZS5.6NB1		
	ZD801	48T90517F26	ZEN., HZS5.6NB1		
	ZD802	48T83128F28	ZEN., HZS11A1L		
Coil					
●	L101	24T84175F01	SDK 57KHz		
■	L101	24T84175F01	SDK 57KHz		
Crystals					
●	X501	48T67096F01	4.5MHz		
▲	X501	48T67096F01	4.5MHz		
■	X501	48T82502F01	4.5MHz		
	X502	91T15285W01	CER., Lock 4.19MHz		
Capacitors					
	C001	08S65128F69	CP.. 0.01μF		
	E001	23T73862F02	ELY.. 220μF/10V		
	C002	08S65128F69	CP.. 0.01μF		
	E002	23S61523F27	ELY.. 0.33μF/50V		
	C003	08S65128F69	CP.. 0.01μF		
	E003	23S61523F09	ELY.. 22μF/10V		
	C004	08S65128F69	CP.. 0.01μF		
●	E004	23S57422F15	ELY.. 47μF/16V		
▲	E004	23S57422F15	ELY.. 47μF/16V		
■	E004	23S61523F15	ELY.. 47μF/16V		
	C005	08S65128F69	CP.. 0.01μF		
	C006	08S65128F57	CP.. 1000pF		
	C007	08S65128F57	CP.. 1000pF		
	C008	08S65128F57	CP.. 1000pF		
	C009	08S65128F57	CP.. 1000pF		

Note : ● ; 7288M Model Only ▲ ; 7288L Model Only Others ; Common
■ ; 7288MM Model Only

Symbol No.		Part No.	Description			
	C010	08T15399W03	CP..	0.047μF		
●	C011	08T44979P01	CER..	1000pF		
▲	C011	08T44979P01	CER..	1000pF		
■	C011	08S65128F57	CP..	1000pF		
■	C012	08S65128F23	CP..	33pF		
●	C012	21C45322G16	CER..	33pF		
▲	C012	21C45322G16	CER..	33pF		
●	C013	08T90316F28	TF..	0.082μF		
■	C013	08T90316F28	TF..	0.082μF		
▲	C013	08T90316F26	TF..	0.056μF		
●	C014	08T15399W04	CP..	0.027μF		
■	C014	08T15399W04	CP..	0.027μF		
▲	C014	08T15399W01	CP..	0.018μF		
	C015	08T15399W03	CP..	0.047μF		
	C017	08S65128F69	CP..	0.01μF		
	C018	23T82372F19	ELY..(BP)	2.2μF/50V		
	C019	08T15399W01	CP..	0.022μF		
	C020	08T15399W01	CP..	0.022μF		
	C021	08T15399W01	CP..	0.022μF		
●	C101	08S65128F59	CP..	1500pF		
■	C101	08S65128F59	CP..	1500pF		
●	C102	08T90316F23	TF..	0.033μF		
■	C102	08T90316F23	TF..	0.033μF		
●	E102	23S61523F17	ELY..	4.7μF/25V		
■	E102	23S61523F17	ELY..	4.7μF/25V		
●	C103	08T90316F25	TF..	0.047μF		
■	C103	08T90316F25	TF..	0.047μF		
●	E103	23S61523F25	ELY..	0.1μF/50V		
■	E103	23S61523F25	ELY..	0.1 μF/50V		
●	C104	08T90316F25	TF..	0.047μF		
■	C104	08T90316F25	TF..	0.047μF		
●	E104	23S61523F29	ELY..	1μF/50V		
■	E104	23S61523F29	ELY..	1μF/50V		
●	C105	08T90316F29	TF..	0.1μF		
■	C105	08T90316F29	TF..	0.1 μF		
●	E105	23S61523F29	ELY..	1μF/50V		
■	E105	23S61523F29	ELY..	1μF/50V		
●	C106	08T90316F27	TF..	0.068μF		
●	E106	23S61523F29	ELY..	1μF/50V		
■	E106	23S61523F25	ELY..	0.1 μF/50V		
●	C107	08T90316F27	TF..	0.068μF		
■	C107	08T90316F27	TF..	0.068μF		
●	E107	23S61523F17	ELY..	4.7μF/25V		
■	E107	23S61523F17	ELY..	4.7μF/25V		
●	C108	08T90316F28	TF..	0.082μF		
■	C108	08T90316F28	TF..	0.082μF		
	C201	08T15399W01	CP..	0.022μF		
	E201	23S61523F12	ELY..	10μF/16V		
	C202	08T15399W01	CP..	0.022μF		
	E202	23S61523F31	ELY..	3.3μF/50V		
	E203	23S61523F25	ELY..	0.1μF/50V		
	C204	08S65128F31	CP..	68pF		
	E204	23S61523F29	ELY..	1μF/50V		
●	C205	08T90316F23	TF..	0.033μF		
■	C205	08T90316F23	TF..	0.033μF		
▲	C205	08T90316F29	TF..	0.1μF		
	E205	23S61523F12	ELY..	10μF/16V		
●	C206	08T90316F23	TF..	0.033μF		
■	C206	08T90316F23	TF..	0.033μF		
▲	C206	08T90316F29	TF..	0.1μF		
	E206	23S61523F25	ELY..	0.1μF/50V		
●	C207	08T15399W02	CP..	0.033μF		
■	C207	08T15399W03	CP..	0.033μF		
	E207	23S61523F12	ELY..	10μF/16V		
●	C208	08T15399W03	CP..	0.047μF		
■	C208	08T15399W03	CP..	0.047μF		
	E208	23S61523F12	ELY..	10μF/16V		
	E209	23S61523F17	ELY..	4.7μF/25V		
	E210	23S61523F17	ELY..	4.7μF/25V		
	E211	23S61523F34	ELY..	100μF/10V		
	E212	23S61523F34	ELY..	100μF/10V		
	E213	23S61523F09	ELY..	22μF/10V		
	E215	23S61523F35	ELY..	0.68μF/50V		
	E216	23S61523F35	ELY..	0.68μF/50V		
	E217	23S61523F12	ELY..	10μF/16V		
	E219	23S61523F12	ELY..	10μF/16V		
	E220	23S61523F12	ELY..	10μF/16V		
	E221	23S61523F12	ELY..	10μF/16V		
	E222	23S61523F12	ELY..	10μF/16V		
●	E223	23S61523F12	ELY..	10μF/16V		
■	E223	23S61523F12	ELY..	10μF/16V		
●	E224	23S61523F12	ELY..	10μF/16V		
■	E224	23S61523F12	ELY..	10μF/16V		
	E225	23S61523F17	ELY..	4.7μF/25V		
	E226	23S61523F17	ELY..	4.7μF/25V		
	E229	23S61523F12	ELY..	10μF/16V		
	E230	23S61523F15	ELY..	47μF/16V		
	E231	23S61523F12	ELY..	10μF/16V		
	E232	23S61523F17	ELY..	4.7μF/25V		
	E233	23S61523F12	ELY..	10μF/16V		

Note : ● ; 7288M Model Only   ▲ ; 7288L Model Only   Others ; Common
■ ; 7288MM Model Only

Symbol No.		Part No.	Description			
	C501	08S65128F19	CP.,	22pF		
	E501	23S61523F34	ELY.,	100μF/10V		
	C502	08S65128F19	CP.,	22pF		
	E502	23S61523F12	ELY.,	10μF/16V		
	C503	08S65128F35	CP.,	100pF		
	E503	23S61523F34	ELY.,	100μF/10V		
	C504	08S65128F35	CP.,	100pF		
	E504	23S61523F34	ELY.,	100μF/10V		
	C505	08S65128F35	CP.,	100pF		
	C506	08S65128F35	CP.,	100pF		
	C507	08S65128F35	CP.,	100pF		
	C508	08S65128F23	CP.,	33pF		
	C509	08S65128F51	CP.,	470pF		
	C510	08T15399W03	CP.,	0.047μF		
	C511	08T15399W03	CP.,	0.047μF		
	E801	23S61523F12	ELY.,	10μF/16V		
	C802	08T15399W03	CP.,	0.047μF		
	E802	23S61523F28	ELY.,	0.47μF/50V		
	E803	23S61523F25	ELY.,	0.1μF/50V		
	E804	23S61523F34	ELY.,	100μF/10V		
	E805	23S61523F34	ELY.,	100μF/10V		
	E806	23S61523F12	ELY.,	10μF/16V		
	E807	23S61523F12	ELY.,	10μF/16V		
●	E808	23S61523F15	ELY.,	47μF/16V		
■	E808	23S61523F15	ELY.,	47μF/16V		
	E809	23S61523F12	ELY.,	10μF/16V		
	E810	23S61523F12	ELY.,	10μF/16V		
	E811	23S61523F12	ELY.,	10μF/16V		
Resistors						
	R001	06S64995F53	CP.,	1K ohm 1/16W		
	R002	06T70072F41	CP.,	330 ohm 1/4W		
	R003	06S64995F65	CP.,	3.3K ohm 1/16W		
	R004	06S64995F53	CP.,	1K ohm 1/16W		
	R005	06S64995F65	CP.,	3.3K ohm 1/16W		
	R006	06S64995F53	CP.,	1K ohm 1/16W		
	R007	06S64995F05	CP.,	10 ohm 1/16W		
	R008	06S64995F57	CP.,	1.5K ohm 1/16W		
	R009	06S64995F71	CP.,	5.6K ohm 1/16W		
	R010	06S64995F77	CP.,	10K ohm 1/16W		
	R011	06S64995F15	CP.,	27 ohm 1/16W		
	R012	06S64995F29	CP.,	100 ohm 1/16W		
	R013	06S64995F61	CP.,	2.2K ohm 1/16W		
	R014	06S64995F61	CP.,	2.2K ohm 1/16W		
	R015	06S64995F61	CP.,	2.2K ohm 1/16W		

Symbol No.		Part No.	Description			
	R016	06S64995F05	CP.,	10 ohm 1/16W		
●	R017	06S64995F73	CP.,	6.8K ohm 1/16W		
■	R017	06S64995F73	CP.,	6.8K ohm 1/16W		
▲	R017	06S64995F81	CP.,	15K ohm 1/16W		
	R018	06S64996F26	CP.,	1M ohm 1/16W		
	R019	06S64995F53	CP.,	1K ohm 1/16W		
	R020	06S64995F77	CP.,	10K ohm 1/16W		
	R021	06S64995F53	CP.,	1K ohm 1/16W		
■	R022	06S64995F88	CP.,	30K ohm 1/16W		
●	R022	06S64995F88	CP.,	30K ohm 1/16W		
▲	R022	06S64996F01	CP.,	91K ohm 1/16W		
●	R023	06S64995F65	CP.,	3.3K ohm 1/16W		
■	R023	06S64995F65	CP.,	3.3K ohm 1/16W		
▲	R023	06S64995F76	CP.,	9.1K ohm 1/16W		
●	R024	06S64995F65	CP.,	3.3K ohm 1/16W		
■	R024	06S64995F65	CP.,	3.3K ohm 1/16W		
▲	R024	06S64995F76	CP.,	9.1K ohm 1/16W		
	R025	06S64995F61	CP.,	2.2K ohm 1/16W		
	R026	06S64995F61	CP.,	2.2K ohm 1/16W		
	R027	06S64995F93	CP.,	47K ohm 1/16W		
	R028	06S64995F93	CP.,	47K ohm 1/16W		
	R029	06S53330F65	CP.,	3.3K ohm 1/8W		
	R030	06S53330F65	CP.,	3.3K ohm 1/8W		
	R031	06S64995F65	CP.,	3.3K ohm 1/16W		
	R032	06T70072F53	CP.,	1K ohm 1/4W		
	R033	06T70072F53	CP.,	1K ohm 1/4W		
	R035	06S64995F93	CP.,	47K ohm 1/16W		
	R036	06S64995F93	CP.,	47K ohm 1/16W		
●	R103	06S64995F99	CP.,	82K ohm 1/16W		
■	R103	06S64995F99	CP.,	82K ohm 1/16W		
●	R104	06S64995F85	CP.,	22K ohm 1/16W		
■	R104	06S64995F85	CP.,	22K ohm 1/16W		
●	R105	06S64995F63	CP.,	2.7K ohm 1/16W		
■	R105	06S64995F63	CP.,	2.7K ohm 1/16W		
●	R106	06S64995F53	CP.,	1K ohm 1/16W		
■	R106	06S64995F53	CP.,	1K ohm 1/16W		
●	R107	06S64995F77	CP.,	10K ohm 1/16W		
■	R107	06S64995F77	CP.,	10K ohm 1/16W		
●	R108	06S64996F22	CP.,	680K ohm 1/16W		
■	R108	06S64996F22	CP.,	680K ohm 1/16W		
●	R109	06S64996F04	CP.,	120K ohm 1/16W		
■	R109	06S64996F04	CP.,	120K ohm 1/16W		
●	R110	06S64995F97	CP.,	68K ohm 1/16W		
■	R110	06S64995F97	CP.,	68K ohm 1/16W		
●	R111	06S64995F77	CP.,	10K ohm 1/16W		

Note : ● ; 7288M Model Only ▲ ; 7288L Model Only Others ; Common
■ ; 7288MM Model Only

Symbol No.		Part No.	Description		
■	R111	06S64995F77	CP., 10K ohm 1/16W		
●	R112	06S64996F10	CP., 220K ohm 1/16W		
■	R112	06S64996F10	CP., 220K ohm 1/16W		
●	R113	06S64995F91	CP., 39K ohm 1/16W		
■	R113	06S64995F91	CP., 39K ohm 1/16W		
●	R114	06S64995F77	CP., 10K ohm 1/16W		
■	R114	06S64995F77	CP., 10K ohm 1/16W		
●	R115	06S64995F97	CP., 68K ohm 1/16W		
■	R115	06S64995F97	CP., 68K ohm 1/16W		
●	R116	06S64995F97	CP., 68K ohm 1/16W		
■	R116	06S64995F97	CP., 68K ohm 1/16W		
●	R117	06S64995F93	CP., 47K ohm 1/16W		
■	R117	06S64995F93	CP., 47K ohm 1/16W		
●	R118	06S64995F69	CP., 4.7K ohm 1/16W		
■	R118	06S64995F69	CP., 4.7K ohm 1/16W		
●	R119	06S64996F02	CP., 100K ohm 1/16W		
■	R119	06S64996F02	CP., 100K ohm 1/16W		
●	R120	06S64996F22	CP., 680K ohm 1/16W		
■	R120	06S64996F22	CP., 680K ohm 1/16W		
●	R121	06S64995F43	CP., 390 ohm 1/16W		
■	R121	06S64995F43	CP., 390 ohm 1/16W		
●	R122	06S64996F10	CP., 220K ohm 1/16W		
■	R122	06S64996F10	CP., 220K ohm 1/16W		
●	R123	06S64995F69	CP., 4.7K ohm 1/16W		
■	R123	06S64995F69	CP., 4.7K ohm 1/16W		
	R201	06S64995F77	CP., 10K ohm 1/16W		
	R202	06S64995F77	CP., 10K ohm 1/16W		
	R203	06S64995F45	CP., 470 ohm 1/16W		
	R204	06S64995F45	CP., 470 ohm 1/16W		
	R205	06S64996F18	CP., 470K ohm 1/16W		
	R206	06T70072F53	CP., 1K ohm 1/4W		
	R207	06S64996F18	CP., 470K ohm 1/16W		
	R208	06S64996F01	CP., 91K ohm 1/16W		
	R209	06S64995F85	CP., 22K ohm 1/16W		
	R210	06S64995F61	CP., 2.2K ohm 1/16W		
	R211	06S64995F89	CP., 33K ohm 1/16W		
	R213	06S64995F61	CP., 2.2K ohm 1/16W		
	R214	06S64995F92	CP., 43K ohm 1/16W		
●	R215	06S64995F61	CP., 2.2K ohm 1/16W		
■	R215	06S64995F61	CP., 2.2K ohm 1/16W		
●	R216	06S64995F61	CP., 2.2K ohm 1/16W		
■	R216	06S64995F61	CP., 2.2K ohm 1/16W		
	R217	06S64995F61	CP., 2.2K ohm 1/16W		
	R218	06S64995F85	CP., 22K ohm 1/16W		
●	R219	06S64995F71	CP., 5.6K ohm 1/16W		

Symbol No.		Part No.	Description		
■	R219	06S64995F71	CP., 5.6K ohm 1/16W		
▲	R219	06S64995F59	CP., 1.8K ohm 1/16W		
●	R220	06S64995F71	CP., 5.6K ohm 1/16W		
■	R220	06S64995F71	CP., 5.6K ohm 1/16W		
▲	R220	06S64995F59	CP., 1.8K ohm 1/16W		
	R221	06S53330F37	CP., 220 ohm 1/8W		
	R222	06S53330F37	CP., 220 ohm 1/8W		
●	R229	06S53330F49	CP., 680 ohm 1/8W		
■	R229	06S53330F49	CP., 680 ohm 1/8W		
	R230	06S64995F85	CP., 22K ohm 1/16W		
●	R231	06S64996F02	CP., 100K ohm 1/16W		
■	R231	06S64996F02	CP., 100K ohm 1/16W		
●	R232	06S64996F02	CP., 100K ohm 1/16W		
■	R232	06S64996F02	CP., 100K ohm 1/16W		
●	R233	06S64995F93	CP., 47K ohm 1/16W		
■	R233	06S64995F93	CP., 47K ohm 1/16W		
●	R234	06S64996F02	CP., 100K ohm 1/16W		
■	R234	06S64996F02	CP., 100K ohm 1/16W		
●	R235	06S64996F02	CP., 100K ohm 1/16W		
■	R235	06S64996F02	CP., 100K ohm 1/16W		
●	R236	06S64996F02	CP., 100K ohm 1/16W		
■	R236	06S64996F02	CP., 100K ohm 1/16W		
●	R237	06S64995F91	CP., 39K ohm 1/16W		
■	R237	06S64995F91	CP., 39K ohm 1/16W		
●	R238	06S64996F10	CP., 220K ohm 1/16W		
■	R238	06S64996F10	CP., 220K ohm 1/16W		
●	R239	06S64996F10	CP., 220K ohm 1/16W		
■	R239	06S64996F10	CP., 220K ohm 1/16W		
●	R240	06S64995F93	CP., 47K ohm 1/16W		
■	R240	06S64995F93	CP., 47K ohm 1/16W		
●	R241	06S64995F81	CP., 15K ohm 1/16W		
■	R241	06S64995F81	CP., 15K ohm 1/16W		
	R242	06S64996F02	CP., 100K ohm 1/16W		
	R244	06S64995F77	CP., 10K ohm 1/16W		
	R245	06S64996F26	CP., 1M ohm 1/16W		
	R501	06S64995F69	CP., 4.7K ohm 1/16W		
	R503	06S64995F93	CP., 47K ohm 1/16W		
	R504	06S64995F93	CP., 47K ohm 1/16W		
	R505	06S64995F69	CP., 4.7K ohm 1/16W		
	R506	06S64995F69	CP., 4.7K ohm 1/16W		
	R507	06S64995F93	CP., 47K ohm 1/16W		
	R508	06S64995F61	CP., 2.2K ohm 1/16W		
	R509	06S64995F93	CP., 47K ohm 1/16W		
	R510	06S64995F61	CP., 2.2K ohm 1/16W		
	R511	06S64995F93	CP., 47K ohm 1/16W		

Note : ● ; 7288M Model Only ▲ ; 7288L Model Only Others ; Common
■ ; 7288MM Model Only

	Symbol No.	Part No.	Description		
	R511	06S64995F93	CP.. 47K ohm 1/16W		
	R512	06S64995F93	CP.. 47K ohm 1/16W		
	R513	06S64995F93	CP.. 47K ohm 1/16W		
	R515	06S64995F93	CP.. 47K ohm 1/16W		
	R517	06S64995F93	CP.. 47K ohm 1/16W		
	R518	06S64995F77	CP.. 10K ohm 1/16W		
	R519	06S64995F77	CP.. 0K ohm 1/16W		
	R520	06S64995F77	CP.. 10K ohm 1/16W		
	R521	06S64995F93	CP.. 47K ohm 1/16W		
	R522	06S64996F02	CP.. 100K ohm 1/16W		
	R523	06S64995F85	CP.. 22K ohm 1/16W		
	R524	06S64995F83	CP.. 18K ohm 1/16W		
	R525	06S64995F77	CP.. 10K ohm 1/16W		
	R527	06S64995F73	CP.. 6.8K ohm 1/16W		
	R529	06S64996F02	CP.. 100K ohm 1/16W		
	R530	06S64995F77	CP.. 10K ohm 1/16W		
	R531	06S64996F02	CP.. 100K ohm 1/16W		
	R532	06S64995F93	CP.. 47K ohm 1/16W		
	R533	06S64995F93	CP.. 47K ohm 1/16W		
	R534	06S64995F93	CP.. 47K ohm 1/16W		
	R535	06S64995F93	CP.. 47K ohm 1/16W		
	R802	06S64995F69	CP.. 4.7K ohm 1/16W		
	R803	06S64995F77	CP.. 10K ohm 1/16W		
	R805	06S53330F69	CP.. 4.7K ohm 1/8W		
	R807	06S64995F77	CP.. 10K ohm 1/16W		
	R808	06T70072F38	CP.. 240 ohm 1/4W		
	R809	06T70072F38	CP.. 240 ohm 1/4W		
	R810	06S64995F37	CP.. 220 ohm 1/16W		
	R811	06S64995F81	CP.. 15K ohm 1/16W		
	R812	06S64995F87	CP.. 27K ohm 1/16W		
	R813	06S64995F69	CP.. 4.7K ohm 1/16W		
	R814	06S64995F76	CP.. 9.1K ohm 1/16W		
	R815	06S64995F77	CP.. 10K ohm 1/16W		
	R816	06S64995F77	CP.. 10K ohm 1/16W		
	R817	06S64995F77	CP.. 10K ohm 1/16W		
	R818	06S53330F61	CP.. 2.2K ohm 1/8W		
	R819	06T70072F04	CP.. 8.2 ohm 1/4W		
	R820	06T70072F04	CP.. 8.2 ohm 1/4W		
	R821	06S64995F77	CP.. 10K ohm 1/16W		
	R822	06S53330F61	CP.. 2.2K ohm 1/8W		
	R823	06S64995F77	CP.. 10K ohm 1/16W		
	R824	06S53330F61	CP.. 2.2K ohm 1/8W		
●	R825	06S53330F61	CP.. 2.2K ohm 1/8W		
■	R825	06S53330F61	CP.. 2.2K ohm 1/8W		
●	R826	06T70072F53	CP.. 1K ohm 1/4W		

	Symbol No.	Part No.	Description		
■	R826	06T70072F53	CP.. 1K ohm 1/4W		
	R827	06T70072F53	CP.. 1K ohm 1/4W		
	R828	06S64995F77	CP.. 10K ohm 1/16W		
	R829	06S53330F61	CP.. 2.2K ohm 1/8W		
	R830	06S64995F77	CP.. 10K ohm 1/16W		
	R831	06S53330F61	CP.. 2.2K ohm 1/8W		
	R832	06T70072F19	CP.. 39 ohm 1/4W		
	R834	06S64995F77	CP.. 10K ohm 1/16W		
	R835	06S53330F61	CP.. 2.2K ohm 1/8W		
	R836	06S53330F61	CP.. 2.2K ohm 1/8W		
	R837	06S53330F77	CP.. 10K ohm 1/8W		
	R838	06S64995F61	CP.. 2.2K ohm 1/16W		
	R839	06S64995F77	CP.. 10K ohm 1/16W		
●	VR101	18T10024W02	Volume, SOL. RH0615C 150 ohm		
■	VR101	18T25530W02	Variable RH0615C 150 ohm		
●	VR201 S1 S2	18T82143F13	Volume, Control (Power/Eject)		
■	VR201 S1 S2	18T82143F13	Volume,Control (Power/Eject)		
▲	VR201 S1 S2	18T82143F11	Volume, Control (Power/Eject)		
●	VR203	18T16359W13	Variable, RH0614C 10K oh		
■	VR203	18T60065F13	Volume, SOL. 10K ohm		
●	VR209	18T10024W15	Volume, SOL. RH0615C 22K ohm		
▲	VR209	18T10024W15	Volume, SOL. RH0615C 22K ohm		
■	VR209	18T25530W15	Variable RH0615C 22K ohm		
●	VR210	18T10024W15	Volume, SOL. RH0615C 22K ohm		
▲	VR210	18T10024W15	Volume,SOL,RH0615C 22K ohm		
■	VR210	18T25530W15	Variable RH0615C 22K Ohm		

Power-Amp P.C. Board

IC's

	Symbol No.	Part No.	Description		
	IC301	51T82314F01	AN7171K		
	IC302	51T92001F01	BA4560F		
	IC304	51T92001F01	BA4560F		

Note : ● ; 7288M Model Only ▲ ; 7288L Model Only Others ; Common
■ ; 7288MM Model Only

Symbol No.	Part No.	Description		
Transistors				
Q303	48T62967F02	CP., DTC114K		
Q305	48T62967F33	CP., DTC343T		
Q306	48T62967F33	CP., DTC343T		
Diodes				
D801	48C40235G02	10E2		
D802	48C40235G02	10E2		
D803	48C40235G02	10E2		
● D808	48T63462F01	CP., DAN202K		
■ D808	48T52446F01	CP., MA151WK		
Capacitors				
C301	08T90316F19	TF.. 0.015μF		
E301	23S61523F17	ELY.. 4.7μF/25V		
C302	08T90316F19	TF.. 0.015μF		
E302	23S61523F17	ELY.. 4.7μF/25V		
C303	08T90316F31	TF.. 0.15μF		
E303	23S61523F34	ELY.. 100μF/10V		
C304	08T90316F31	TF.. 0.15μF		
E304	23S61523F34	ELY.. 100μF/10V		
C305	08T90316F31	TF.. 0.15μF		
E305	23S82482F02	ELY.. 100μF/16V		
C306	08T90316F31	TF.. 0.15μF		
E306	23T16360W91	ELY.. 3300μF/16V		
C307	08S65128F59	CP.. 1500pF		
● E307	23S43247F05	ELY.. 1μF/50V		
▲ E307	23S43247F05	ELY.. 1μF/50V		
■ E307	23S61523F29	ELY.. 1μF/50V		
C308	08S65128F59	CP.. 1500pF		
E308	23S61523F12	ELY.. 10μF/16V		
C309	08S65128F76	CP.. 0.1μF		
E309	23S61523F17	ELY.. 4.7μF/25V		
E310	23S61523F17	ELY.. 4.7μF/25V		
C311	08S65128F47	CP.. 330pF		
C312	08S65128F47	CP.. 330pF		
E314	23S61523F12	ELY.. 10μF/16V		
E315	23S61523F12	ELY.. 10μF/16V		
E316	23S61523F12	ELY.. 10μF/16V		
E317	23S61523F12	ELY.. 10μF/16V		
C801	08S65128F47	CP.. 330pF		

Symbol No.	Part No.	Description		
Resistors				
R301	06S64995F37	CP.. 220 ohm 1/16W		
R302	06S64995F37	CP.. 220 ohm 1/16W		
R303	06S64995F37	CP.. 220 ohm 1/16W		
R304	06S64995F37	CP.. 220 ohm 1/16W		
R305	06S64995F37	CP.. 220 ohm 1/16W		
R306	06S64995F37	CP.. 220 ohm 1/16W		
R307	06S53331F40	CP.. 2.2 ohm 1/8W		
R308	06S53331F40	CP.. 2.2 ohm 1/8W		
R309	06S53331F40	CP.. 2.2 ohm 1/8W		
R310	06S53331F40	CP.. 2.2 ohm 1/8W		
R311	06S64995F77	CP.. 10K ohm 1/16W		
R312	06S64995F93	CP.. 47K ohm 1/16W		
R313	06S64995F67	CP.. 3.9K ohm 1/16W		
R314	06S64995F67	CP.. 3.9K ohm 1/16W		
R315	06S64995F85	CP.. 22K ohm 1/16W		
R316	06S64995F85	CP.. 22K ohm 1/16W		
R317	06S64995F85	CP.. 22K ohm 1/16W		
R318	06S64995F85	CP.. 22K ohm 1/16W		
R319	06S64995F37	CP.. 220 ohm 1/16W		
R320	06S64995F37	CP.. 220 ohm 1/16W		
R321	06S64995F77	CP.. 10K ohm 1/16W		
R322	06S64995F77	CP.. 10K ohm 1/16W		
R323	06S64995F37	CP.. 220 ohm 1/16W		
R324	06S64995F37	CP.. 220 ohm 1/16W		
R335	06S64995F77	CP.. 10K ohm 1/16W		
R336	06S64995F77	CP.. 10K ohm 1/16W		
R337	06S64995F77	CP.. 10K ohm 1/16W		
R338	06S64995F77	CP.. 10K ohm 1/16W		
R339	06S64995F77	CP.. 10K ohm 1/16W		
R340	06S64995F77	CP.. 10K ohm 1/16W		
R341	06S64995F77	CP.. 10K ohm 1/16		
R342	06S64995F77	CP.. 10K ohm 1/16		
R801	06S64996F10	CP.. 220K ohm 1/16		
● R804	06S53330F77	CP.. 10K ohm 1/8W		
▲ R804	06S53330F77	CP.. 10K ohm 1/8W		
■ R804	06S70072F35	CP.. 1K ohm 1/8W		
R840	06S53330F77	CP.. 10K ohm 1/8W		
R841	06S64995F77	CP.. 10K ohm 1/16		
Front P.C. Board				
IC's				
IC401	51T83905F01	LC7582		
IC402	51T11037W01	BU4021BF		
IC403	51T92001F01	BA4560F		

Note : ● ; 7288M Model Only ▲ ; 7288L Model Only Others ; Common
■ ; 7288MM Model Only

Symbol No.	Part No.	Description		
Diodes				
D401	48T94471F01	1MN10		
D402	48T94471F01	1MN10		
LED's				
● LD401	48T15700W02	MBG4868K(GRN)		
▲ LD401	48T15700W02	MBG4868K(GRN)		
■ LD401	48T15700W01	MAA4868K(ORG)		
● LD402	48T15700W02	MBG4868K(GRN)		
▲ LD402	48T15700W02	MBG4868K(GRN)		
■ LD402	48T15700W01	MAA4868K(ORG)		
● LD403	48T15700W02	MBG4868K(GRN)		
▲ LD403	48T15700W02	MBG4868K(GRN)		
■ LD403	48T15700W01	MAA4868K(ORG)		
● LD404	48T15700W02	MBG4868K(GRN)		
▲ LD404	48T15700W02	MBG4868K(GRN)		
■ LD404	48T15700W01	MAA4868K(ORG)		
● LD405	48T15700W02	MBG4868K(GRN)		
▲ LD405	48T15700W02	MBG4868K(GRN)		
■ LD405	48T15700W01	MAA4868K(ORG)		
Lamps				
● PL401	65T80297F05	6V-65mA		
▲ PL401	65T80297F05	6V-65mA		
■ PL401	65T80297F12	6V-65mA		
● PL402	65T25417W01	Pilot 6V-70mA		
▲ PL402	65T25417W01	Pilot 6V-70mA		
■ PL402	65T25417W03	Pilot 6V-70mA		
● PL403	65T25417W01	Pilot 6V-70mA		
▲ PL403	65T25417W01	Pilot 6V-70mA		
■ PL403	65T25417W02	Pilot 6V-70mA		
● PL404	65T25417W01	Pilot 6V-70mA		
▲ PL404	65T25417W01	Pilot 6V-70mA		
■ PL404	65T25417W02	Pilot 6V-70mA		
● PL405	65T95274F01	6V-70mA		
▲ PL405	65T95274F01	6V-70mA		
■ PL405	65T16161W09	6V-70mA		
● PL406	65T95274F01	6V-70mA		
▲ PL406	65T95274F01	6V-70mA		
■ PL406	65T16161W09	6V-70mA		

Symbol No.	Part No.	Description		
Switches				
S401	40T10876W12	Tact SKHLAJ (RESET)		
S402	40T10876W12	Tact SKHLAJ (PROGRAM)		
S403	40T10876W12	Tact SKHLAJ (MONO)		
S404	40T10876W12	Tact SKHLAJ (R.MONI)		
S405	40T10876W12	Tact SKHLAJ (DN/REW)		
S406	40T10876W12	Tact SKHLAJ (DAP/MIX)		
S407	40T10876W12	Tact SKHLAJ (DISC)		
S408	40T10876W12	Tact SKHLAJ (DX)		
S409	40T10876W12	Tact SKHLAJ (LOUD)		
S410	40T10876W12	Tact SKHLAJ (UP/FF)		
S411	40T10876W12	Tact SKHLAJ (TUNE)		
S412	40T10876W12	Tact SKHLAJ (TUNER/BAND)		
S413	40T10876W12	Tact SKHLAJ (3)		
S414	40T10876W12	Tact SKHLAJ (2/M.S)		
S415	40T10876W12	Tact SKHLAJ (1/DOLBY)		
S416	40T10876W12	Tact SKHLAJ (TAPE)		
S417	40T10876W12	Tact SKHLAJ (6)		
S418	40T10876W12	Tact SKHLAJ (5)		
S419	40T10876W12	Tact SKHLAJ (4)		
Capacitors				
C401	08S65128F55	CP., 680pF		
E401	23S43247F16	ELY., 22μF /6.3V		
C402	08T15399W03	CP., 0.047μF		
C403	08T90316F21	TF., 0.022μF		
C404	08T90316F21	TF., 0.022μF		
C405	08S82122F21	CP., 22pF		
C406	08S82122F21	CP., 22pF		
C407	08T50579F30	TF., 2200pF		
C408	08T90316F09	TF., 2200pF		
C409	08S82122F55	CP., 560pF		
C410	08S82122F55	CP., 560pF		
C411	08T15399W03	CP., 0.047μF		
Resistors				
R401	06S64995F94	CP., 51K ohm 1/16W		
R402	06S64995F93	CP., 47K ohm 1/16W		
R403	06S64995F93	CP., 47K ohm 1/16W		
R404	06S64995F93	CP., 47K ohm 1/16W		
R405	06S64995F93	CP., 47K ohm 1/16W		
● R417	06T70072F28	CP., 91 ohm 1/4W		
▲ R417	06T70072F28	CP., 91 ohm 1/4W		
■ R417	06T70072F29	CP., 100 ohm 1/4W		
● R418	06T70072F28	CP., 91 ohm 1/4W		
▲ R418	06T70072F28	CP., 91 ohm 1/4W		

Note : ● ; 7288M Model Only ▲ ; 7288L Model Only Others ; Common
■ ; 7288MM Model Only

	Symbol No.	Part No.	Description		
■	R418	06T70072F29	CP., 100 ohm 1/4W		
●	R419	06T70072F28	CP., 91 ohm 1/4W		
▲	R419	06T70072F28	CP., 91 ohm 1/4W		
■	R419	06T70072F29	CP., 100 ohm 1/4W		
●	R420	06T70072F28	CP., 91 ohm 1/4W		
▲	R420	06T70072F28	CP., 91 ohm 1/4W		
■	R420	06T70072F29	CP., 100 ohm 1/4W		
●	R421	06T70072F47	CP., 560 ohm 1/4W		
▲	R421	06T70072F47	CP., 560 ohm 1/4W		
■	R421	06T70072F53	CP., 1K ohm 1/4W		
●	R422	06T70072F23	CP., 56 ohm 1/4W		
▲	R422	06T70072F23	CP., 56 ohm 1/4W		
■	R422	06T70072F29	CP., 100 ohm 1/4W		
●	R423	06T70072F44	CP., 430 ohm 1/4W		
▲	R423	06T70072F44	CP., 430 ohm 1/4W		
■	R423	06T70072F51	CP., 820 ohm 1/4W		
●	R424	06T70072F21	CP., 47 ohm 1/4W		
▲	R424	06T70072F21	CP., 47 ohm 1/4W		
■	R424	06T70072F31	CP., 120 ohm 1/4W		
	R425	06S64995F85	CP., 22K ohm 1/16W		
	R426	06S64995F85	CP., 22K ohm 1/16W		
	R427	06S64995F85	CP., 22K ohm 1/16W		
	R428	06S64995F85	CP., 22K ohm 1/16W		
	R429	06S64996F26	CP., 1M ohm 1/16W		
	R430	06S64996F26	CP., 1M ohm 1/16W		
	R431	06S64995F68	CP., 4.3K ohm 1/16W		
	R432	06S64995F68	CP., 4.3K ohm 1/16W		
	R433	06S64995F68	CP., 4.3K ohm 1/16W		
	R434	06S64995F68	CP., 4.3K ohm 1/16W		
	VR401	18T15284W01	Volume, Slide (Bass)		
	VR402	18T15284W01	Volume, Slide (Treble)		
GR Control P.C. Board					
IC					
	IC1501	51T63506F01	PU4124		
Transistors					
	Q1501	48T62967F03	CP., DTC124K		
	Q1502	48T62967F02	CP., DTC114K		
	Q1503	48T62967F02	CP., DTC114K		
	Q1504	48T62967F02	CP., DTC114K		
	Q1507	48T52547F02	2SB793A		

Symbol No.	Part No.	Description		
Q1508	48T52438F03	CP.,2SD601A		
Q1509	48T52547F02	2SB793A		
Q1510	48T52547F02	2SB793A		
Q1511	48T93828F03	2SD1994A		
Q1512	48T93828F03	2SD1994A		
Diodes				
D1501	48T44813F01	MA165TA		
D1502	48C40235G02	10E2		
D1503	48T44813F01	MA165TA		
D1504	48T44813F01	MA165TA		
ZD1501	48T68697F43	ZEN., HZS11EB2		
Capacitor				
C1501	23S82482F02	ELY., 100µF/16V		
Resistors				
R1501	06S81094F01	MF., 2.2 ohm 1/2W		
R1502	06S53330F77	CP., 10K ohm 1/8W		
R1503	06S53330F84	CP., 20K ohm 1/8W		
R1505	06S53330F77	CP., 10K ohm 1/8W		
R1506	06S53330F77	CP., 10K ohm 1/8W		
R1507	06T67581F32	CF., 1K ohm 1/2W		
R1508	06T67581F32	CF., 1K ohm 1/2W		
R1509	06T67581F32	CF., 1K ohm 1/2W		
R1510	06T67581F32	CF., 1K ohm 1/2W		
R1511	06S53330F77	CP., 10K ohm 1/8W		
R1512	06S53330F77	CP., 10K ohm 1/8W		
R1513	06S53330F84	CP., 20K ohm 1/8W		
R1514	06S53330F77	CP., 10K ohm 1/8W		
R1515	06S53330F77	CP., 10K ohm 1/8W		
R1516	06S53330F77	CP., 10K ohm 1/8W		
R1517	06S53330F77	CP., 10K ohm 1/8W		
R1518	06S53330F77	CP., 10K ohm 1/8W		
R1519	06T70072F53	CP., 1K ohm 1/4W		
R1520	06S53330F94	CP., 51K ohm 1/8W		
R1521	06S53330F89	CP., 33K ohm 1/8W		
R1522	06T70072F53	CP., 1K ohm 1/4W		

Note: ●;7288M Model Only ▲;7288L Model Only Others;Common
■;7288MM Model Only

Symbol No.	Part No.	Description		
GR Audio P.C. Board				
IC				
IC1201	51T15146W01	TA7705P		
Diode				
D1201	48T44813F01	MA165TA		
Capacitors				
C1201	23S61524F13	ELY.. 10μF/16V		
C1202	08S53332F33	CP.. 680pF		
C1203	08S53332F33	CP.. 680pF		
C1204	08S53332F33	CP.. 680pF		
C1205	08S53332F33	CP.. 680pF		
C1206	23S61524F07	ELY.. 47μF/ 6.3V		
C1207	23S61524F07	ELY.. 47μF/ 6.3V		
C1208	08T90316F18	TF.. 0.012μF		
C1209	08T90316F18	TF.. 0.012μF		
C1210	23S61524F18	ELY.. 4.7μF/25V		
C1211	23S61524F18	ELY.. 4.7μF/25V		
C1216	23S82482F02	ELY.. 100μF/16V		
Resistors				
R1201	06S53330F29	CP.. 100 ohm 1/8W		
R1202	06S53330F32	CP.. 130 ohm 1/8W		
R1203	06S53330F32	CP.. 130 ohm 1/8W		
R1204	06S64996F14	CP.. 330K ohm 1/16W		
R1205	06S64996F14	CP.. 330K ohm 1/16W		
R1208	06S64995F78	CP.. 11K ohm 1/16W		
R1209	06S64995F78	CP.. 11K ohm 1/16W		
R1210	06S64995F81	CP.. 15K ohm 1/16W		
R1211	06S64995F81	CP.. 15K ohm 1/16W		
R1212	06S64995F65	CP.. 3.3K ohm 1/16W		
R1213	06S64995F65	CP.. 3.3K ohm 1/16W		

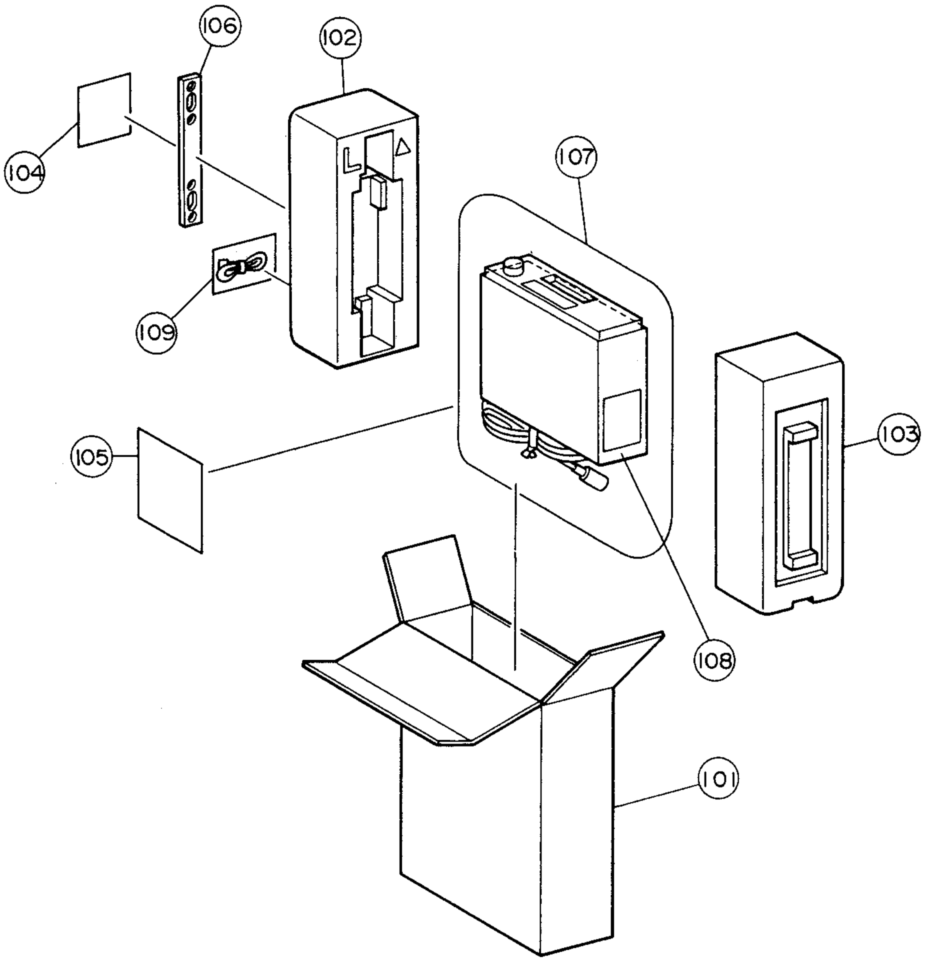
Symbol No.	Part No.	Description		
Miscellaneous				
LCD401	65T16467W02	LCD. LU1561		
ET801	09T15921W04	QRB. Connector 25P		
BA801	60T91060F03	Battery Lithium CR2032		
HD101	88T10373W01	Head		
M501	01V11500W64	Assy. Motor		
PT501	51T15144W01	Sensor. Photo		
S501	40T15222W01	Switch. Detector(Pack In)		
S502	40T15382W01	Switch. Detector (Pack Down)		
S503	40T15382W01	Switch. Detector(Metal)		
SD501	01T10369W01	Assy. Eject Solenoid		
SD502	01T15249W01	Assy. Play Solenoid		
SD503	01T10371W01	Assy. R/F Solenoid		

Packing Assembly Parts List

Symbol No.		Part No.	Description		
●	101	56S12717W78	Carton, Packing(IND)		
▲	101	56S12717W77	Carton, Packing(IND)		
■	101	56S20232W35	Carton, Packing(IND)		
	102	56D82187F01	Tray, Packing(L)		
	103	56D82187F02	Tray, Packing(R)		
	104	01V21100W06	Assy. Kit		
	104-1	02B47353F01	Nut, Hex.(M5)		
	104-2	03S40012G66	Screw, Tapping (M5x20)		
	104-3	03B44963F03	Bolt, Hex. W/Washer (M5x10)		
	104-4	03A40155F05	Bolt, Hex, Socket(M5x14)		
	104-5	03A40155F01	Bolt, Hex, Socket(M5x8)		
	104-6	03A84814F04	Screw, Pan(M2.6x18)		
	104-7	43A58272F04	Spacer		
	104-8	45A41684U01	Arm, Adapter		
●	105	68P13420W21	Owners, Manual		
■	105	68P13420W75	Owners, Manual		
▲	105	68P13420W20	Owners, Manual		
	106	07B64552F01	Bracket, Strap Receiver		
	107	56B40990T36	Sack, Poly		
●	108	01V21600W03	Assy. Case Mother		
▲	108	01V21100W96	Assy. Case Mother		
	108-1	15D94518F01	Case, Mother		
●	108-2	01T25038W02	Assy. QRB Plug		
▲	108-2	01T25038W01	Assy. QRB Plug		
	108-3	03S44205G61	Screw, Pan(M2.6x10)		
	108-4	03S44205G07	Screw, Pan(M2.6x5)		
	109	01T96095F01	Assy. Connector 4P		

Note : ● ; 7288M Model Only ▲ ; 7288L Model Only ■ ; 7288MM Model Only Others ; Common

Packing Method View



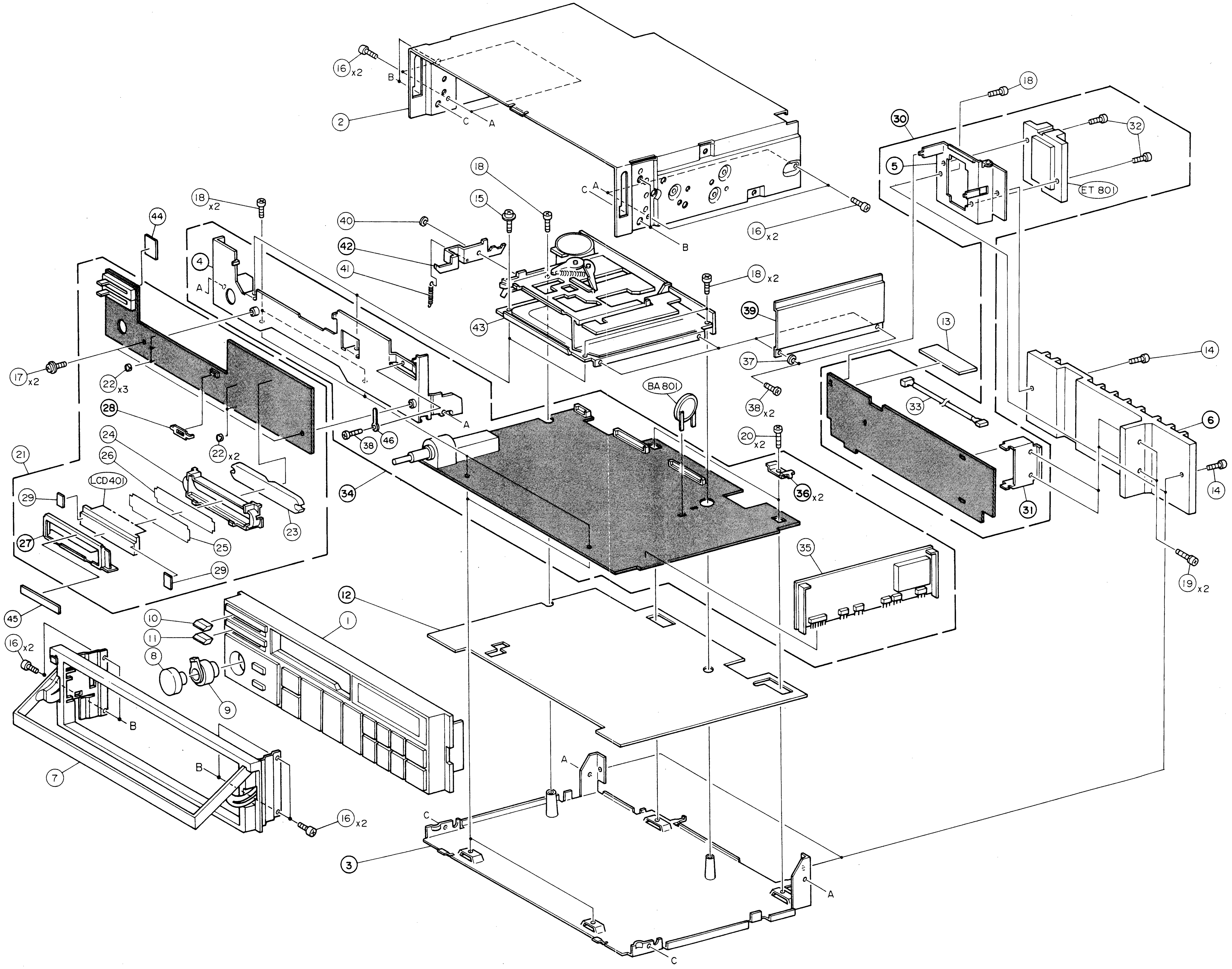
Cabinet Assembly Parts List

Note : The parts without part numbers are not supplied.

Symbol No.		IN-dex	Part No.	Description		
●	1	4-C	13D13873W05	Nose, Piece Assy		
▲	1	4-C	13D13873W04	Nose, Piece Assy		
■	1	4-C	13D13873W07	Nose, Piece Assy		
	2	1-C	15C11101W02	Cover, Top		
	7	4-A	07C10065W01	Bracket, Handle Assy.		
	8	4-B	36A94114F01	Knob, Control(Front)		
	9	4-B	36A94115F01	Knob, Control(Back)		
	10	4-B	36B10950W01	Knob, Slide(A)		
	11	4-B	36B10950W02	Knob, Slide(B)		
	13	2-F	75A82934F01	Cushion		
	14		03A73194F01	Screw, Bind(M2.6x9)		
	15	2-D	03S71677F06	Screw, Flange(M2.6x6)		
	16		03S44205G34	Screw, Pan(M2.6x5)		
	17	2-A	03C42723U08	Screw, Cup(M2.6x5.5)		
	18		03S44205G07	Screw, Pan(M2.6x5)		
	19	4-G	03D40014G58	Screw, W/Washer (M2.6x14)		
	20	3-E	03S44205G42	Screw, Pan(M2.6x4)		
●	21	3-A	01V21600W01	Assy, Front P.C.Board		
▲	21	3-A	01V21600W01	Assy, Front P.C.Board		
■	21	3-A	01V23500W39	Assy, Front P.C.Board		
	22	3-B	07A71033F01	Support, LED		
	23	3-C	61A13875W01	Lens, LCD		
	24	3-B	15B13876W01	Cover, LCD		
■	25	3-B	26A13877W03	Refrector, Sheet		
▲	25	3-B	26A13877W01	Refrector, Sheet		
●	25	3-B	26A13877W01	Refrector, Sheet		
	26	3-B	26A13877W02	Refrector, Sheet		
	29		14S94481F99	Insulator, Cover		
	32	1-G	03S44205G29	Screw, Pan(M2.6x6)		
	33	3-F	01T16110W01	Assy, Connector Shield(2P)		
	35	3-E	77C12381W01	Tuner, MB4E701V (FE001)		
	37	2-E	04S40070G01	Washer, Flat(M3.3)		
	38	3-C	03S44205G30	Screw, Pan(M2.6x4)		
	40	2-C	04A41345P22	Washer, Lock(M2.6)		
	41	2-C	41A84062F01	Spring, Lever		
	43	2-D	81D10481W01	Cassette Deck GR75E010		
	44	2-B	75S72374F48	Cushion-R		
	45	4-A	14S20478W10	Insulator, Cover		
	46	3-C	29A737272	Lug, Wrap Around		

Note : ● ; 7288M Model Only ▲ ; 7288L Model Only Others ; Common
■ ; 7288MM Model Only

Exploded View (Cabinet)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B
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C
A
18
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ET 801
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41
44
4
A
43
18 x2
39
13
14
37
38 x2
17 x2
22 x3
28
A
BA 801
33
6
38
46
20 x2
24
22 x2
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8
9
B
7
B
A
16 x2
C
3
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C
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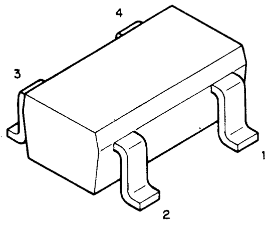
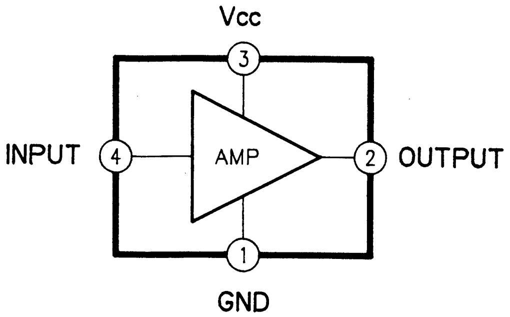
A
B
C
D
E
F
G

Semi-Conductor Lead Identifications

µPC1675G: IC001




Vcc
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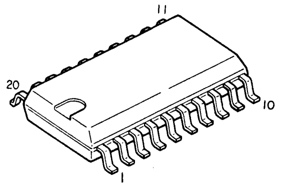
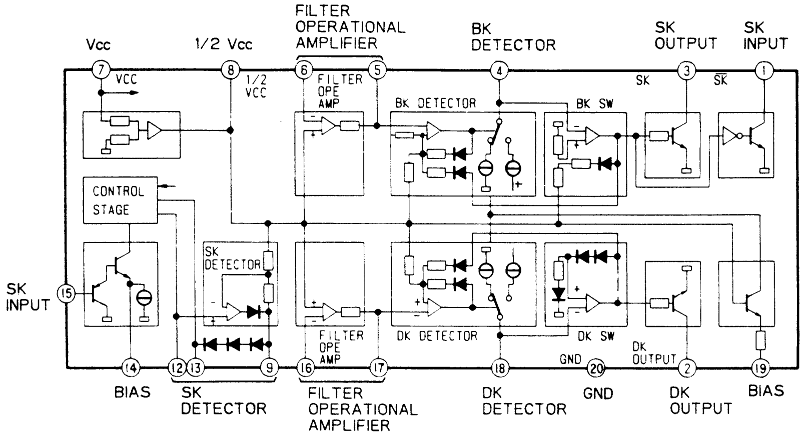
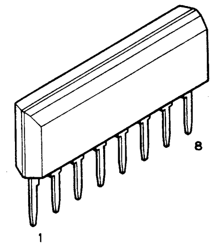
INPUT
4
AMP
2
OUTPUT
1
GND

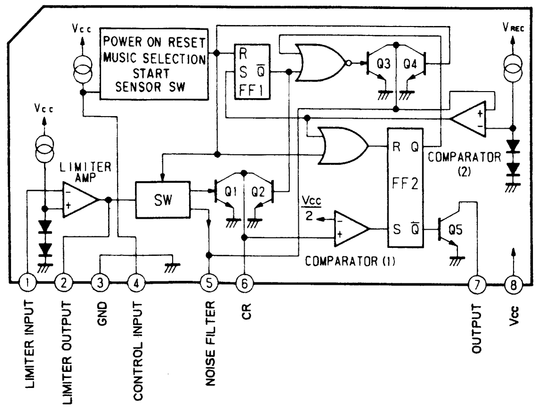
TDA1579T: IC101 (7288M/MM Model only)




Vcc
1/2 Vcc
FILTER OPERATIONAL AMPLIFIER
BK DETECTOR
SK OUTPUT
SK INPUT
VCC
1/2 VCC
FILTER OPE AMP
BK DETECTOR
BK SW
SK
CONTROL STAGE
SK DETECTOR
SK INPUT
FILTER OPE AMP
DK DETECTOR
DK SW
GND
DK OUTPUT
BIAS
SK DETECTOR
FILTER OPERATIONAL AMPLIFIER
DK DETECTOR
GND
DK OUTPUT
BIAS

M51143AL: IC201

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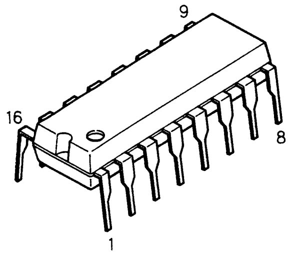
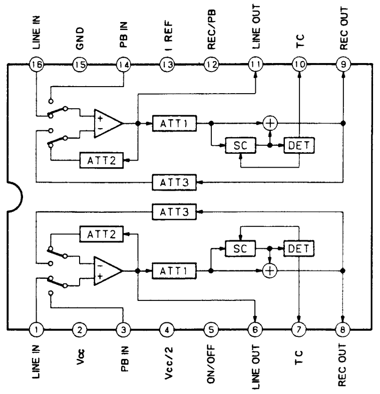
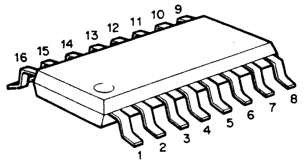
POWER ON RESET MUSIC SELECTION START SENSOR SW
R
S Q̄
FF1
Q3
Q4
VREC
Vcc
LIMITER AMP
SW
Q1
Q2
R Q
FF2
S Q̄
COMPARATOR (2)
Vcc/2
Q5
COMPARATOR (1)
1
2
3
4
5
6
7
8
LIMITER INPUT
LIMITER OUTPUT
GND
CONTROL INPUT
NOISE FILTER
CR
OUTPUT
Vcc

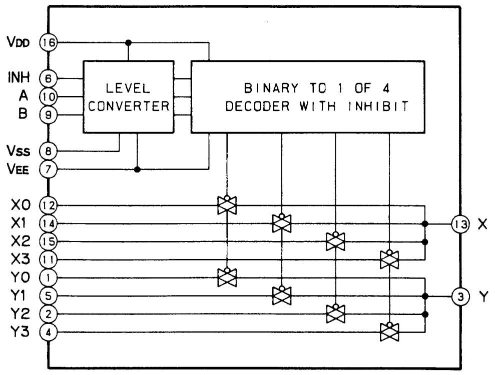
CXA1163M: IC202



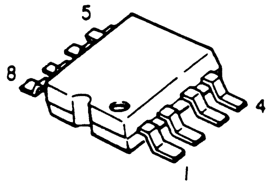

LINE IN
GND
PB IN
I REF
REC/PB
LINE OUT
TC
REC OUT
16
15
14
13
12
11
10
9
ATT1
ATT2
SC
DET
ATT3
ATT3
ATT2
SC
DET
ATT1
1
2
3
4
5
6
7
8
LINE IN
Vcc
PB IN
Vcc/2
ON/OFF
LINE OUT
TC
REC OUT

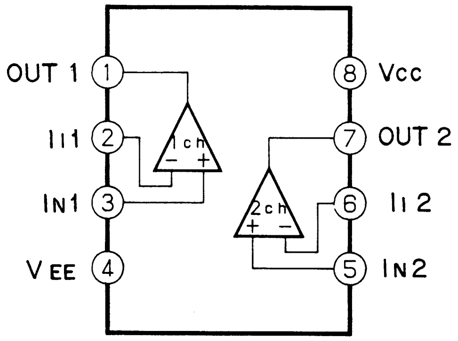
BU4052BF: IC203


16
15
14
13
12
11
10
9
1
2
3
4
5
6
7
8

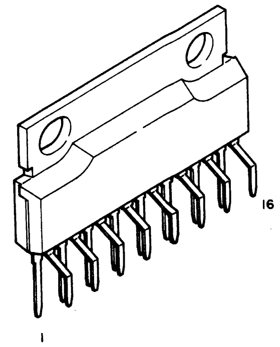

VDD 16
INH 6
A 10
B 9
LEVEL CONVERTER
BINARY TO 1 OF 4 DECODER WITH INHIBIT
Vss 8
VEE 7
X0 12
X1 14
X2 15
X3 11
Y0 1
Y1 5
Y2 2
Y3 4
13 X
3 Y

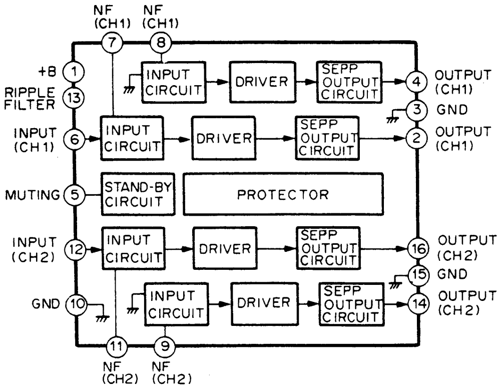
BA4558F: IC204 (7288M/MM Model only)



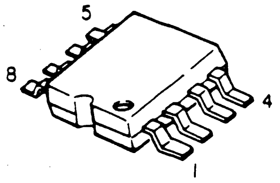

OUT 1
1
I1 1
2
IN1
3
V EE
4
1ch
2ch
8
Vcc
7
OUT 2
6
I1 2
5
IN2

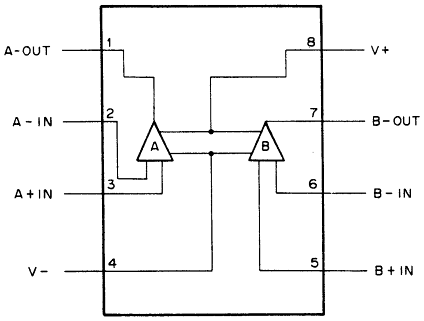
AN7171K: IC301



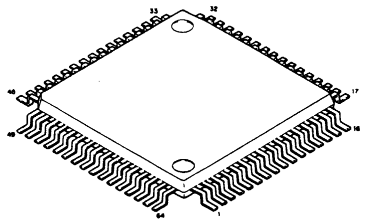

NF (CH1)
NF (CH1)
+B ①
RIPPLE FILTER ⑬
INPUT (CH1) ⑥
MUTING ⑤
INPUT (CH2) ⑫
GND ⑩
INPUT CIRCUIT
DRIVER
SEPP OUTPUT CIRCUIT
STAND-BY CIRCUIT
PROTECTOR
④ OUTPUT (CH1)
③ GND
② OUTPUT (CH1)
⑯ OUTPUT (CH2)
⑮ GND
⑭ OUTPUT (CH2)
⑦ ⑧ ⑪ ⑨
NF (CH2)
NF (CH2)

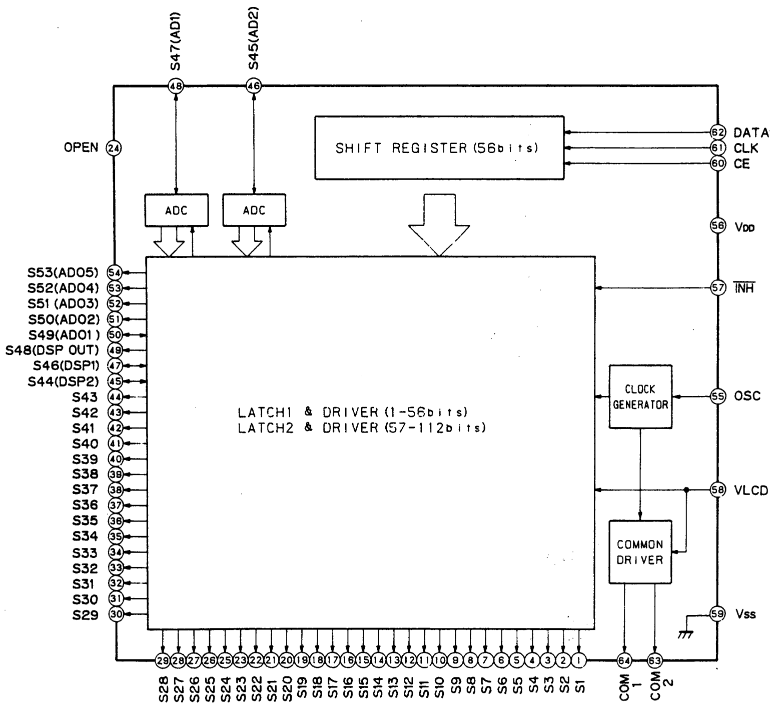
BA4560F: IC302, 304, 403, 803



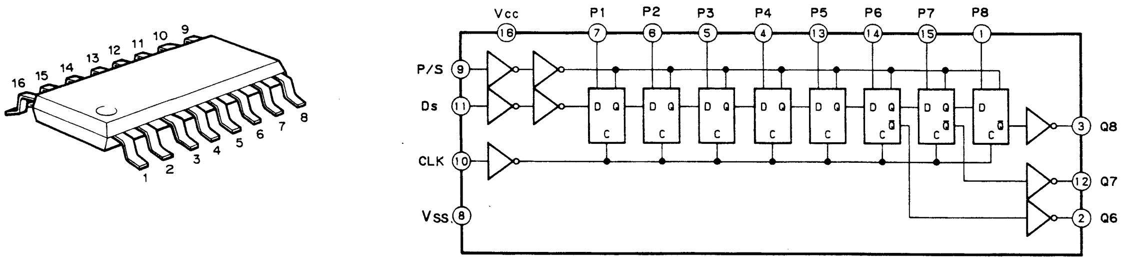

A-OUT 1
A - IN 2
A + IN 3
V - 4
8 V+
7 B-OUT
6 B - IN
5 B + IN
A
B

LC7582: IC401

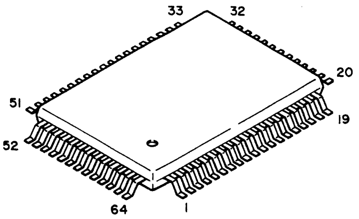

33
32
48
17
49
16
64
1


S47(AD1) ㊽
S45(AD2) ㊻
OPEN ㉔
SHIFT REGISTER (56bits)
㊷ DATA
㊶ CLK
㊵ CE
ADC
ADC
(56) VDD
(57) INH
(55) OSC
(58) VLCD
(59) Vss
S53(AD05) (54)
S52(AD04) (53)
S51 (AD03) (52)
S50(AD02) (51)
S49(AD01) ㊿
S48(DSP OUT) ㊾
S46(DSP1) ㊼
S44(DSP2) ㊺
S43 ㊹
S42 ㊸
S41 ㊷
S40 ㊶
S39 ㊵
S38 ㊴
S37 ㊳
S36 ㊲
S35 ㊱
S34 ㉟
S33 ㉞
S32 ㉝
S31 ㉜
S30 ㉛
S29 ㉚
LATCH1 & DRIVER (1-56bits)
LATCH2 & DRIVER (57-112bits)
CLOCK GENERATOR
COMMON DRIVER
S28 ㉘
S27 ㉗
S26 ㉖
S25 ㉕
S24 ㉔
S23 ㉓
S22 ㉒
S21 ㉑
S20 ⑳
S19 ⑲
S18 ⑱
S17 ⑰
S16 ⑯
S15 ⑮
S14 ⑭
S13 ⑬
S12 ⑫
S11 ⑪
S10 ⑩
S9 ⑨
S8 ⑧
S7 ⑦
S6 ⑥
S5 ⑤
S4 ④
S3 ③
S2 ②
S1 ①
COM 1 (64)
COM 2 (63)

BU4021BF: IC402

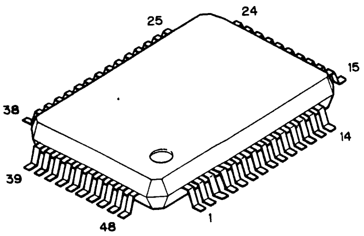

16
15
14
13
12
11
10
9
1
2
3
4
5
6
7
8
Vcc
P1
P2
P3
P4
P5
P6
P7
P8
16
7
6
5
4
13
14
15
1
P/S
9
Ds
11
CLK
10
Vss
8
D Q
C
3
Q8
12
Q7
2
Q6

16432W01: IC501


33
32
20
19
51
52
64
1

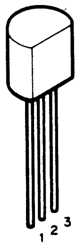
1	RUN DET	17	MS DET	33	$\overline{\text{SDK ON}}$	49	$\overline{\text{LOUD}}$
2	PACK DOWN	18	$\overline{\text{LCD INH}}$	34	$\overline{\text{A. MEMO ON}}$	50	SDK BUZ TONE
3	PLAY SOL	19	PW RON	35	NC	51	RADIO/TAPE
4	RF SOL	20	DTSCE	36	NC	52	CHG. O
5	EJECT SOL	21	BUZ ON	37	$\overline{\text{VOL PUSH KEY}}$	53	NC
6	MOTOR CONT	22	CHG ON	38	KEY IN	54	NC
7	$\overline{\text{RESET}}$	23	NC	39	$\overline{\text{D MUTE}}$	55	NC
8	X2	24	$\overline{\text{DOLBY B}}$	40	STRT	56	NC
9	X1	25	KEY P/S	41	STS	57	V_{DD}
10	LEVEL O. FAST	26	V_{SS}	42	CMD	58	V_{DD}
11	MOTOR FAST	27	PWR SW ON	43	$\overline{\text{SCK}}$	59	$\overline{\text{MUTE}}$
12	O. MOTOR	28	IGN +5 V	44	NC	60	OUT REMOTE
13	FOR/REV	29	CHG IN	45	LCD DATA	61	OUT INT
14	PACK IN SW	30	BAT +5 V	46	LCD CLK	62	IN INT
15	METAL	31	ARE A1	47	LCD CE	63	IN PAU
16	MS DET	32	ARE A0	48	NC	64	NC

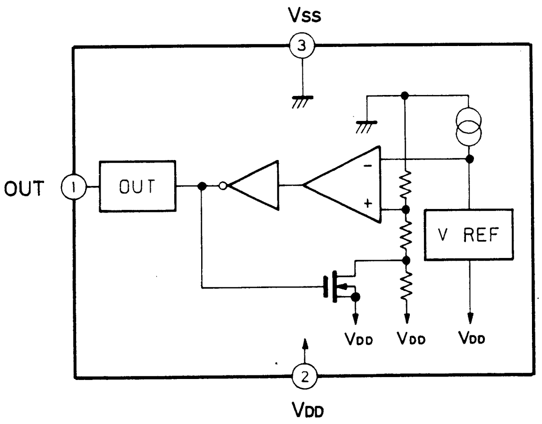
94468F04: IC502


25
24
15
38
14
39
48
1

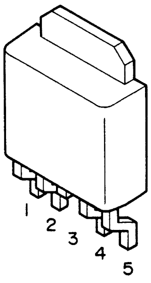
1	E01	17	STRT	33	NC
2	E02	18	MUTE	34	NC
3	$V_{DD}1$	19	LO	35	NC
4	VCOL	20	X0	36	NC
5	VCOH	21	X1	37	NC
6	CE	22	GND	38	NC
7	$V_{DD}2$	23	CO	39	NC
8	NARROW	24	TUNER ON	40	NC
9	MONO	25	BAND 3	41	NC
10	AM SLD	26	BAND 2	42	GND
11	A MEMO	27	BAND 1	43	DK
12	AMIF	28	T3	44	$\overline{SK}$
13	FMIF	29	T2	45	$\overline{ST}$
14	SI	30	T1	46	SD
15	$\overline{SCK}$	31	T0	47	SM
16	STS	32	NC	48	CI

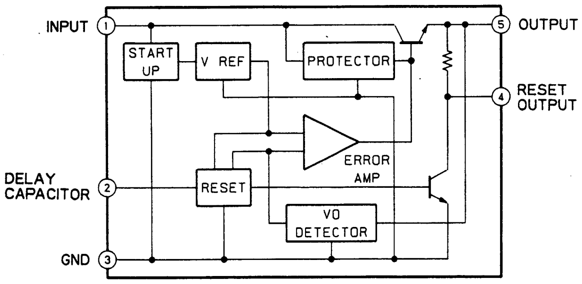
S-8052ALR: IC503



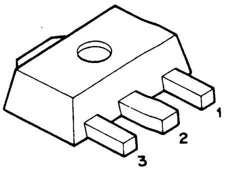

Vss
3
OUT
1
OUT
-
+
V REF
VDD
VDD
VDD
2
VDD

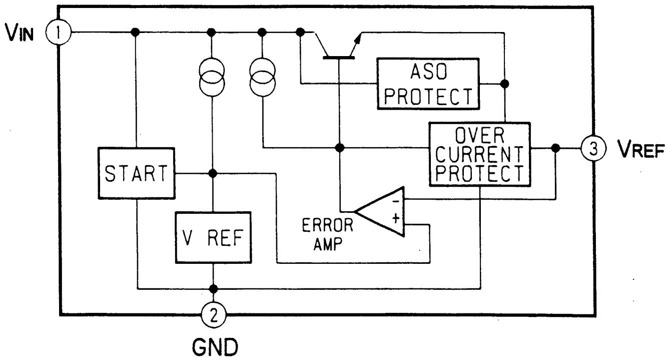
L78LR05BFA: IC801



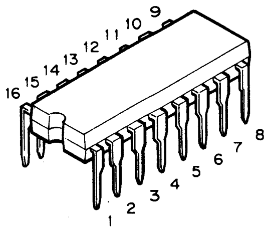

INPUT
1
START UP
V REF
PROTECTOR
5
OUTPUT
4
RESET OUTPUT
ERROR AMP
DELAY CAPACITOR
2
RESET
VO DETECTOR
GND
3

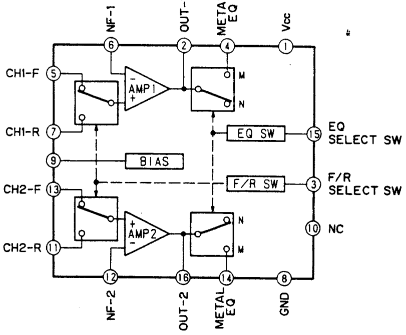
M5236ML: IC802



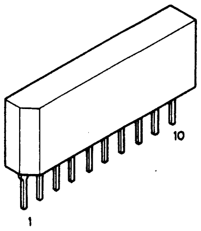

VIN
1
ASO PROTECT
OVER CURRENT PROTECT
3
VREF
START
V REF
ERROR AMP
-
+
2
GND

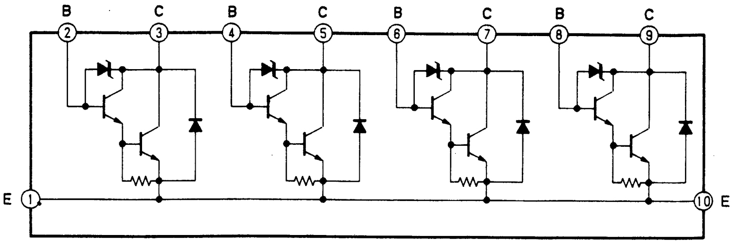
TA7705P: IC1201 (GR75E010)


9
10
11
12
13
14
15
16
1
2
3
4
5
6
7
8

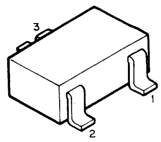

NF-1
OUT-1
METAL EQ
Vcc
6
2
4
1
CH1-F
5
AMP1
M
N
CH1-R
7
EQ SW
15
EQ SELECT SW
9
BIAS
CH2-F
13
F/R SW
3
F/R SELECT SW
AMP2
N
10
NC
CH2-R
11
M
12
16
14
8
NF-2
OUT-2
METAL EQ
GND

PU4124: IC1501 (GR75E010)

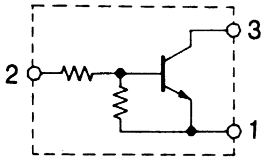



B
C
B
C
B
C
B
C
2
3
4
5
6
7
8
9
E
1
10
E

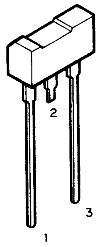
DTC124K: Q001, 004, 005, 006, 008, 011, 201, 203, 205, 206, 207, 208
Q213, 215, 219, 505, 806, 810, 812, 814, 820, 822, 824, 825
Q827
Q216, 816, 817 (7288M/MM Model only)
Q1501 (GR75E010)
DTC143K: Q804, 808
DTC144K: Q501
DTC114K: Q303
Q1502, 1503, 1504 (GR75E010)
DTC114YK: Q801



1. Emitter
2. Base
3. Collector

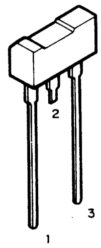


2SD1193: Q002, 003
2SD1994A: Q1511, 1512 (GR75E010)



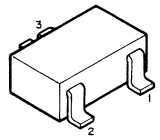
1. Emitter
2. Collector
3. Base

2SB1238: Q007, 012, 807, 819, 821, 823, 826
2SB1240: Q811, 813
2SD1858: Q009

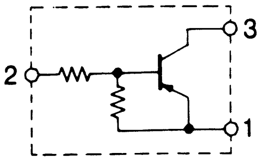


1. Emitter
2. Collector
3. Base

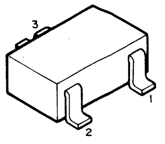
DTA124: Q010, 214, 220, 504, 803, 805
Q815 (7288M/MM Model only)



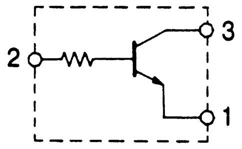
1. Emitter
2. Base
3. Collector



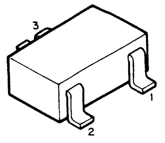
DTC343T: Q209, 210, 217, 218, 305, 306



1. Emitter
2. Base
3. Collector

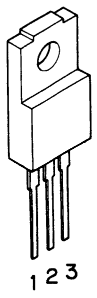


2SA1037K: Q502, 809
2SC2412K: Q503
Q102, 103 (7288M/MM Model only)
2SD1328: Q211, 212 (7288M/MM Model only)
2SD601A: Q1508 (GR75E010)



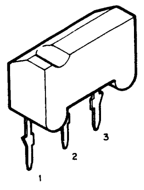
1. Emitter
2. Base
3. Collector

2SD1266: Q818



1. Base
2. Collector
3. Emitter

2SB793A: Q1507, 1509, 1510 (GR75E010)



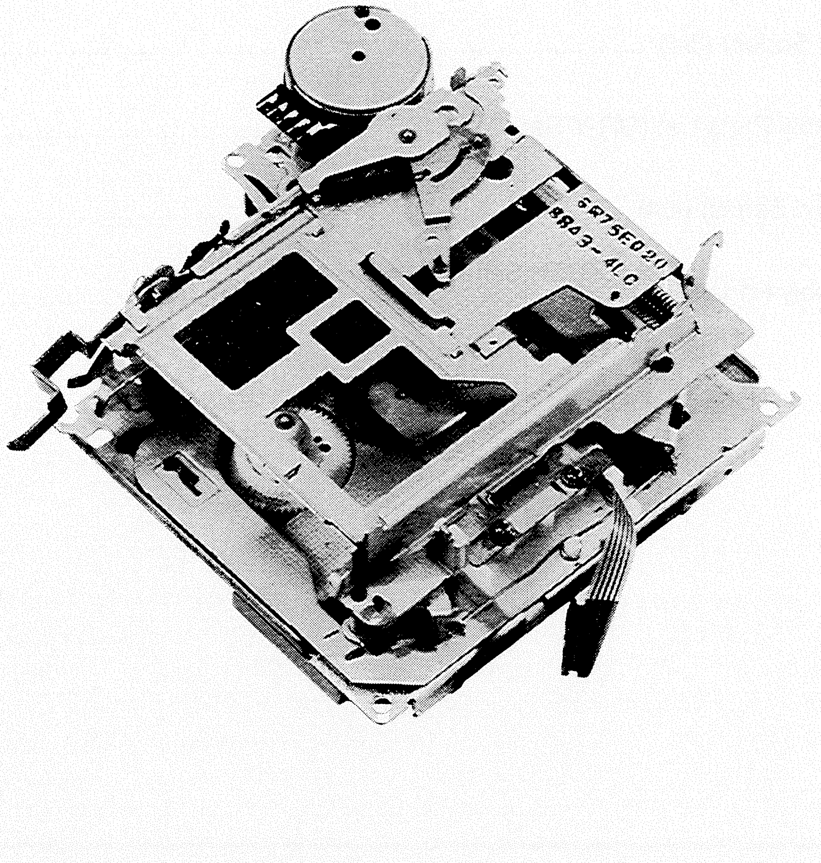
1. Emitter
2. Collector
3. Base

ALPINE®

SERVICE MANUAL

Cassette Deck Mechanism

ADDENDUM & REVISED(V)


6R75E020
8R43-4LC

GR/GR-Y SERIES

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Exploded View (GR75L Series) (2/4) ..... 21 to 22

Cassette Deck Assembly Parts List (GR75L Series) (2/4) ..... 23 to 24

Exploded View (GR-Y Series) (3/4) ..... 25 to 26

Cassette Deck Assembly Parts List (GR-Y Series) (3/4) ..... 27 to 28

Exploded View (GR75H Series) (4/4) ..... 29 to 30

Cassette Deck Assembly Parts List (GR75H Series) (4/4) ..... 31 to 32

List of Usable Lock Washers

	SIZE	PARTS NO.	QUANTITY			
			GR75E Series	GR75L Series	GR-Y Series	GR75H Series
1	(M1.2 × 3.5 × 0.25)	04B41345P01	4	4	4	2
2	(M1.7 × 3.5 × 0.25)	04B41345P02	1	1	1	4
3	(M1.2 × 2.5 × 0.25)	04B41345P11	8	8	8	9
4	(M1.7 × 3.5 × 0.35)	04B41345P12	2	2	2	2
5	(M1.2 × 3.5 × 0.35)	04B41345P15	2	2	2	2
6	(M1 × 2.5 × 0.25)	04B41345P17	1	1	1	2
7	(M2.6 × 5 × 0.25)	04B41345P29	1	1	1	1
8	(M3.1 × 8 × 0.05)	04B41345P30	1	1	1	1
9	(M3.1 × 5 × 0.35)	04B41345P32	2	2	2	2
10	(M1.2 × 2.5 × 0.3)	04B41345P34	1	1	1	0
11	(M1.7 × 2.8 × 0.25)	04B41345P35	1	1	1	2
12	(M2.1 × 4 × 0.25)	04B41345P37	1	1	1	0
13	(M2.1 × 4 × 0.13)	04S40075G05	2	2	2	0
14	(M2.1 × 4 × 0.3)	04S40075G58	0	0	0	1

List of Usable Oil

1) Molykote G paste
2) Grease EM-30L
3) Grease PG-671

List of Usable Jigs

1) GR bottom gear jig (Part No. 44A20788W01)
2) Head height adjustment gauge
   AI-500 (Part No. AI-500)

Memo

Disassembly, Assembly and Replacement of Functional Parts

1. Disassembly and Assembly of Bottom Cover

(1) Turn the mechanism around as shown in Figure 1.
(2) Remove M1 lock washer ① as shown in Figure 1.
(3) Remove three screws ② as shown in Figure 1.
(4) Lift the bottom cover slowly from the position Ⓐ-1, pull the hooks out of the holes in the chassis, and remove the bottom cover as shown in Figure 1.
(5) When remounting the bottom cover, first turn the front of the mechanism up as shown in Figure 2.
(6) Slide the slider in the direction Ⓐ-2 as shown in Figure 2.
(7) Push down the cassette holder in the direction Ⓐ-3 as shown in Figure 2.
(8) Pull the door pin in the direction Ⓐ-4 so that the mechanism is locked in as shown in Figure 2.
(9) Turn the mechanism around as shown in Figure 3.
(10) Pull the automatic metal lever in the direction Ⓐ-5 and the RF solenoid chip in the direction Ⓐ-6 as shown in Figure 3.
(11) Insert the hooks of the bottom cover into the chassis in the direction Ⓐ-7, and then join the part Ⓐ-8 of the bottom cover to the chassis slowly, making sure that the 3 points indicated with the straight lines in the Figure 3 are fitted properly.
If there are troubles in mounting the bottom cover, do not apply force but remove the bottom cover once again and check the positions of the individual parts. (Refer to Figure 3.)
(12) Since the hooks marked Ⓐ-8 will be lifted slightly as shown in Figure 4, insert the jig through the hole Ⓐ-9, and fix it turning the jig slightly in the direction Ⓐ-11.
Instead of operation (12), turn the gear nose slowly with a precision screwdriver etc., taking care not to damage it.
After 2 to 3 turns, it will click into place.
(Refer to Figures 4 and 5.)
(13) Fix the screws and the lock washer that have been removed.

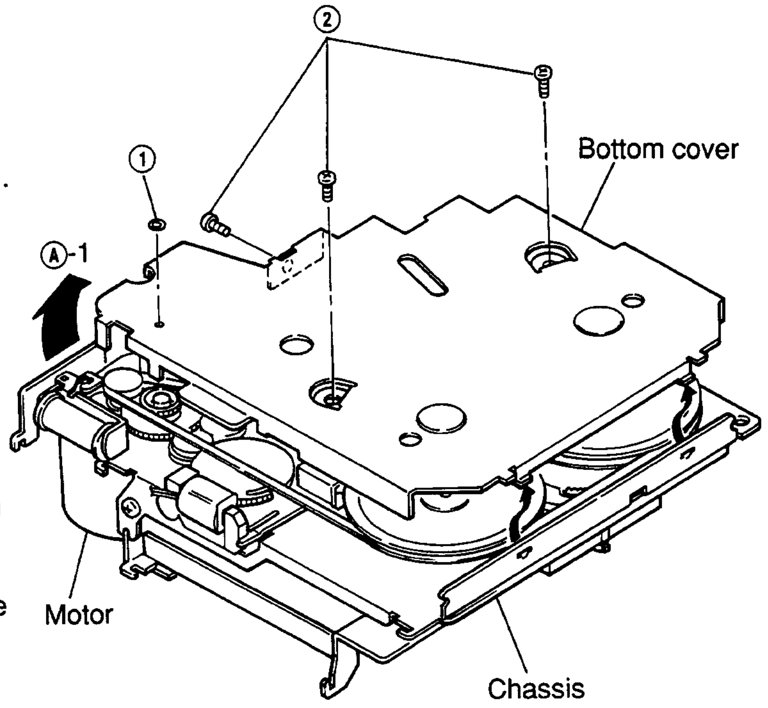


Figure 1

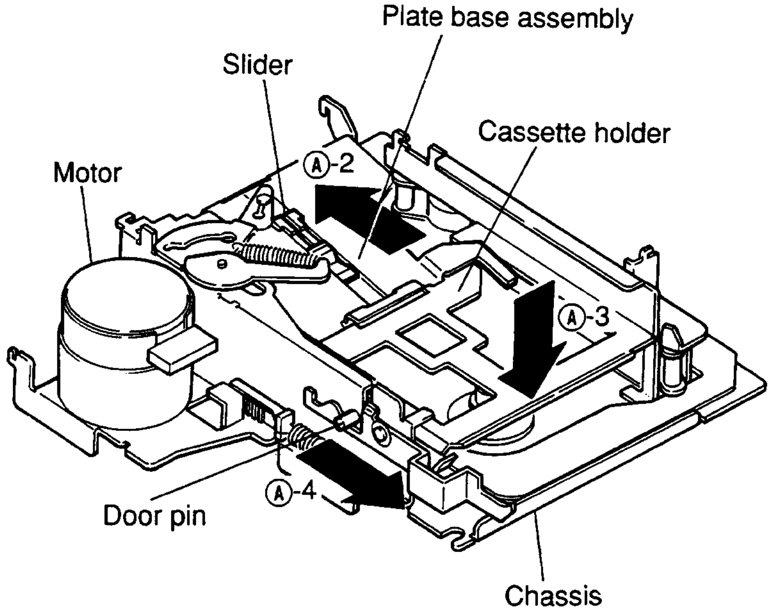


Figure 2

(14) Insert the jig into the hole Ⓐ-9 as shown in Figure and rotate the eject solenoid counterclockwise about 20 times, pulling it in the direction Ⓐ-10 with the finger.
Then the eject operation is completed.
Instead of operation (14), the eject operation can be performed by mounting the mechanism to the product. (Refer to Figures 4 and 5.)

Note: Do not reuse the used lock washers for mounting.
When turning the mechanism, be careful not to drop the gear and the flywheel.
Fasten the three screws with a fastening torque of 6 kg.cm.

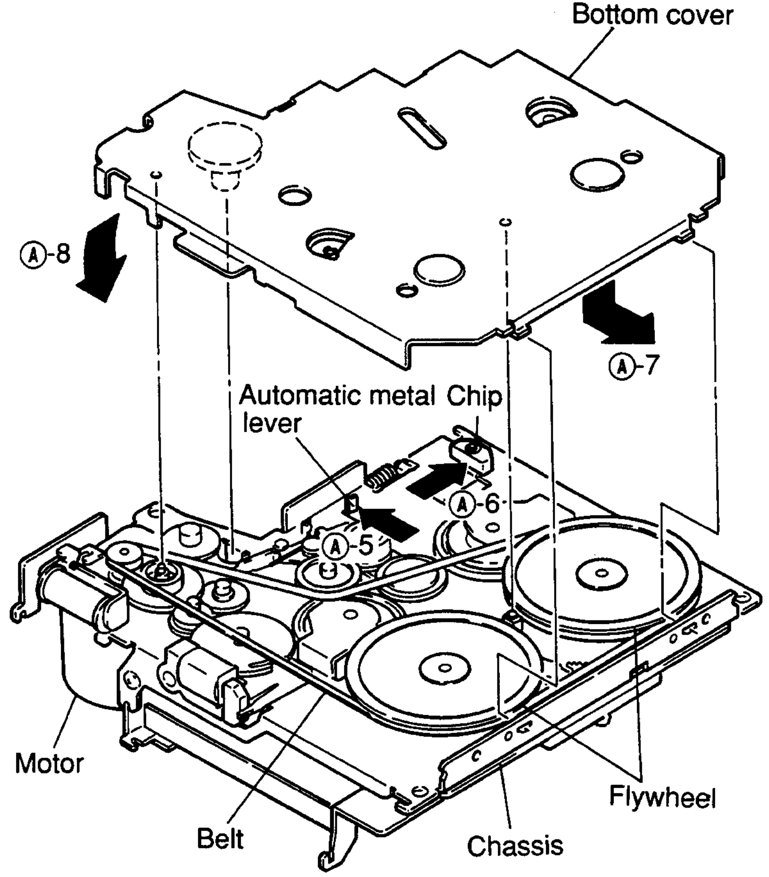


Figure 3

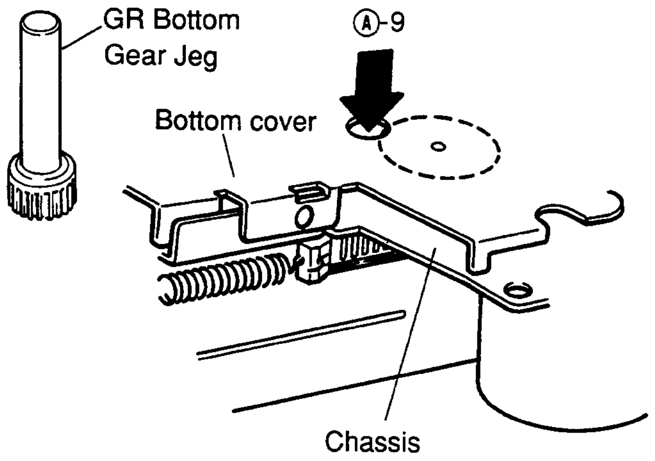


Figure 4

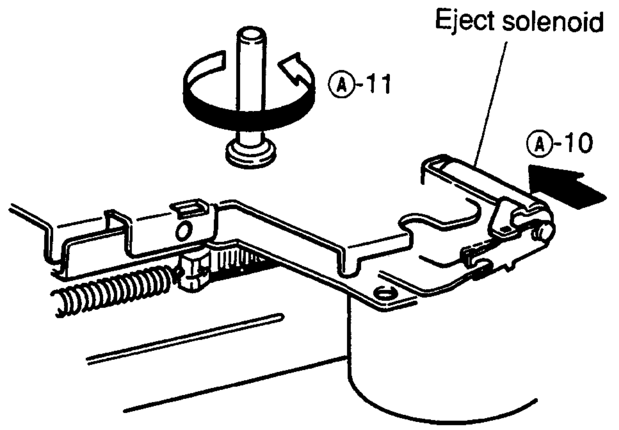


Figure 5

2. Replacement of the bottom cover mounting parts

a. Replacement of the eject gear

(1) Remove M1.2 lock washer ③ as shown in Figure 6.
(2) Pull the eject pinion out of the eject gear and remove the eject gear as shown in Figure 6.
(3) Apply the molykote E paste to the section Ⓑ-1, and mount the eject gear following the removal steps in the reverse order. After replacement is finished, make sure that the gear rotates smoothly. (Refer to Figure 6.)

Note: Do not reuse the used lock washers for remounting.
Take care to avoid damage by piercing and tearing.

b. Replacement of the RF solenoid

(1) Remove two solders ④ and remove the RF solenoid from the bottom cover by pulling it up as shown in Figure 6.
(2) Replace the solenoid with a new one, and remount it following the removal steps in the reverse order as shown in Figure 6.

Note: When removing solder ④, set the temperature of the soldering iron to 350° ± 10° and the soldering time to 1 – 3 seconds. Take care that the solder is not loose, that there is no shortcircuit and that the coating is not damaged.

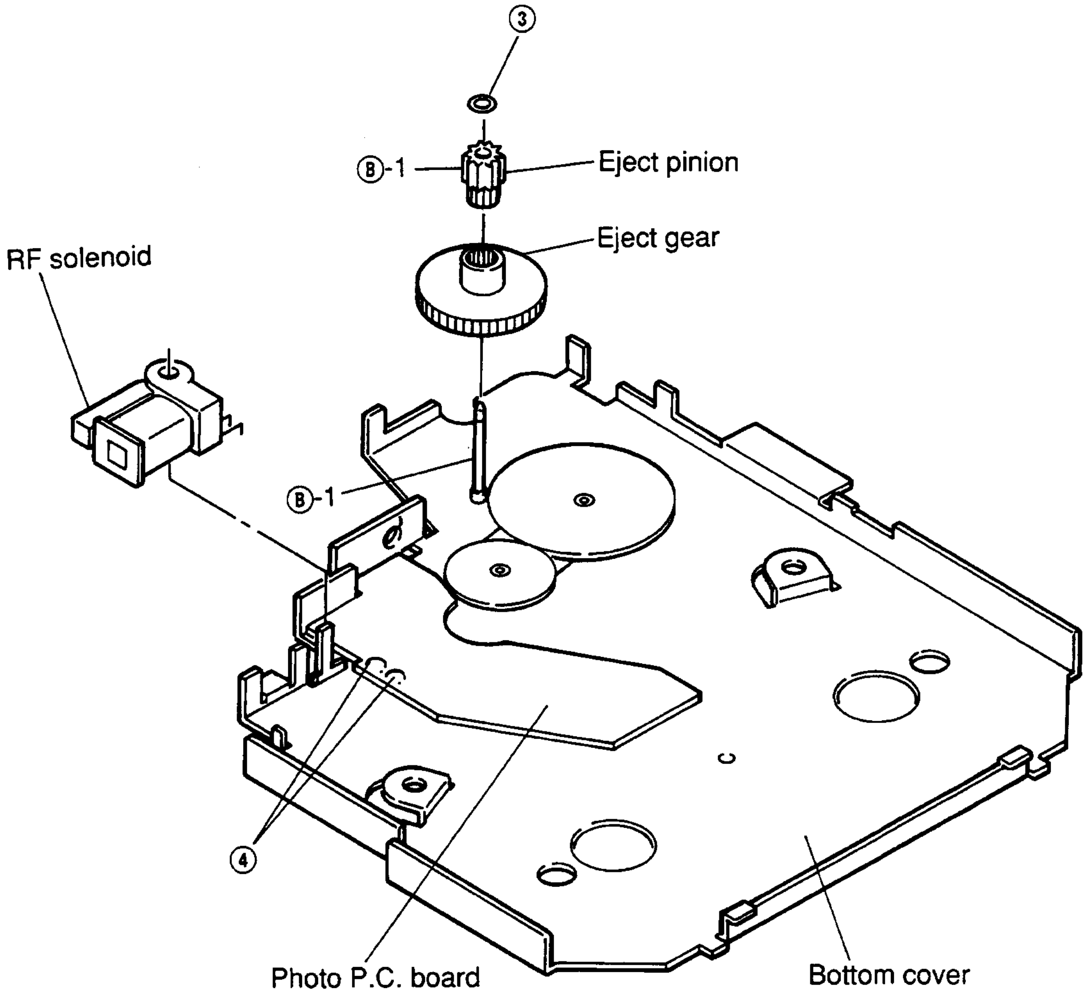


Figure 6

c. Replacement of the photo sensor

(1) Remove four solders ⑤ as shown in Figure 7.
(2) Remove the photo guide together with the photo sensor from the photo P.C. board as shown in Figure 7.
(3) Insert the new photo sensor into the photo guide, and bend the legs of the photo sensor in the direction marked Ⓑ-2 as shown in Figure 7.
(4) Insert the photo guide into the P.C. board and solder the legs so that the photo sensor is set as indicated by ⬚ in Figure 7.

Note: When using the soldering iron, set the temperature of the soldering iron to 350° ± 10° and the soldering time to 1 – 3 seconds. Take care that the solder is not loose, that there is no shortcircuit and that the coating is not damaged. Also take care that the photo guide is properly fixed and straight.

d. Replacement of the detector switch (Automatic metal pack-in)

(1) Remove 4 solders ⑥ with which the switch is fixed as shown in Figure 7.
(2) Prepare the terminals of the switch of the new solder as shown in Figure 8.
(3) After that, insert the switch into the photo P.C. board, and solder the terminals.

Note: When using the soldering iron, refer to Item 2-C to make sure that the temperature of the soldering iron and the soldering time are proper. Also take care that the switch guide is properly fixed and straight.

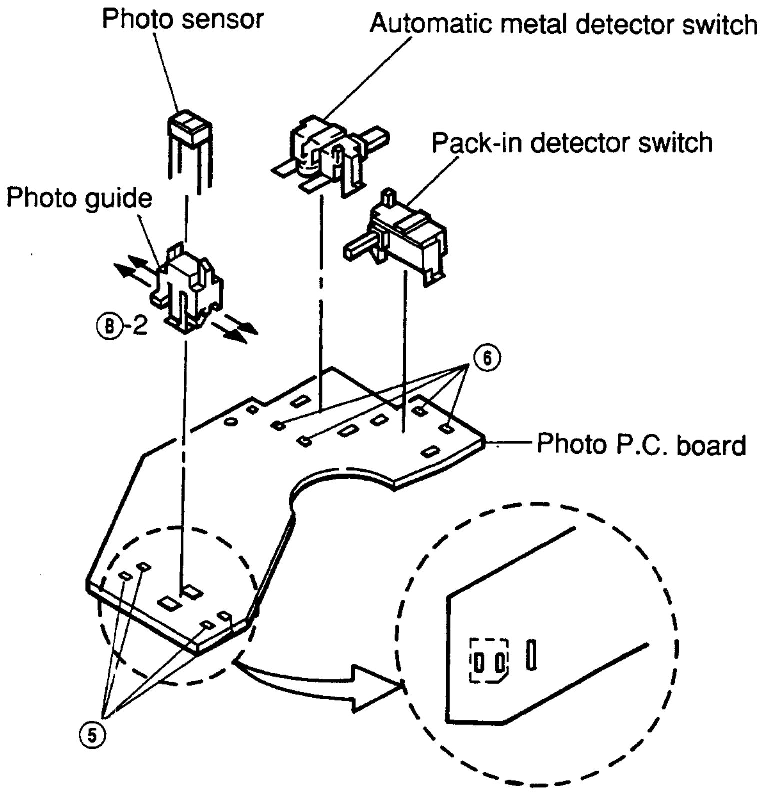


Figure 7

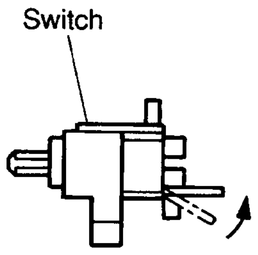


Figure 8

3. Replacement of the mounting parts on the rear of the main chassis

a. Replacement of the belt

(1) After removing the bottom cover, remove the belt.
(2) Clean the new belt with absolute alcohol, and fix it as shown in Figure 9.

Note: When fixing the belt, make sure that it is not twisted or dirty. When removing the belt, do not turn up the front of the chassis.

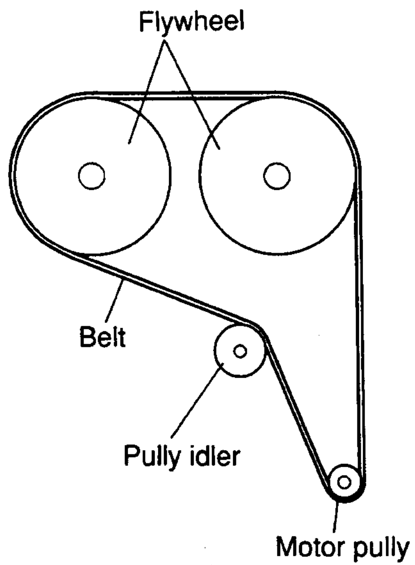

Flywheel
Belt
Pully idler
Motor pully

Figure 9

b. Replacement of the motor

(1) After removing the belt, remove spring ⑦ as shown in Figure 10.
(2) Remove solder ⑧-1, and remove the parallel wire (5P) from the control P.C. board as shown in Figure 11.
(3) Remove two screws ⑨ and ⑩, and remove the motor, taking care not to damage the motor idler gear. (Refer to Figure 10.)
(4) Mount the new motor following the removal steps in the reverse order.

Note: Refer to Item 2-C to make sure that the temperature of the soldering iron and the soldering time are proper. Since the parallel wire is very easily damaged, handle it with care.
Fasten the two screws with a fastening torque of 3 kg.cm.

*When inserting the clutch spring, be careful of the inserting direction as shown in the Figure.

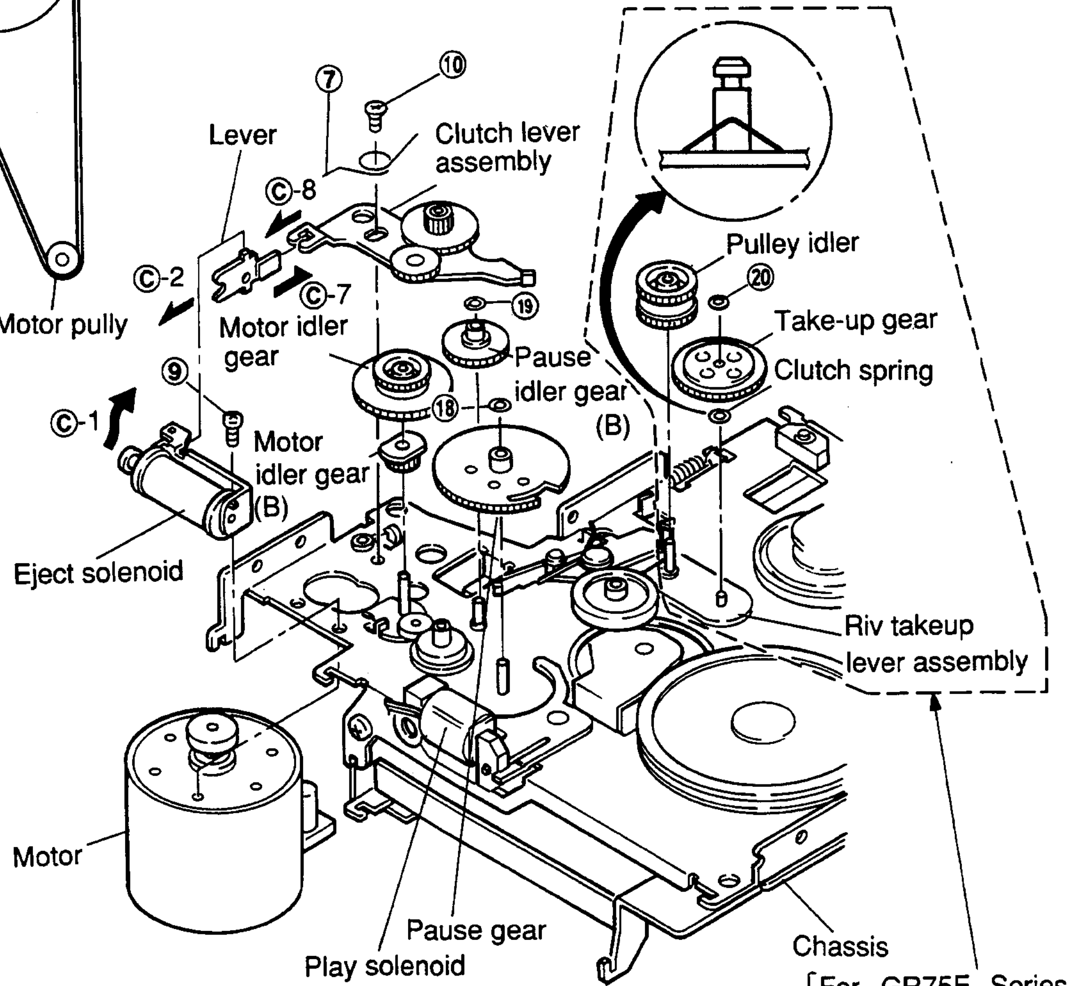

⑩
⑦
Lever
Clutch lever assembly
ⓒ-8
ⓒ-2
ⓒ-7
Motor idler gear
⑲
Pulley idler
⑳
Take-up gear
Clutch spring
Pause idler gear (B)
⑱
⑨
ⓒ-1
Motor idler gear (B)
Eject solenoid
Riv takeup lever assembly
Motor
Pause gear
Play solenoid
Chassis

Figure 10

[For GR75E Series
GR75L Series
GR-Y Series
models]

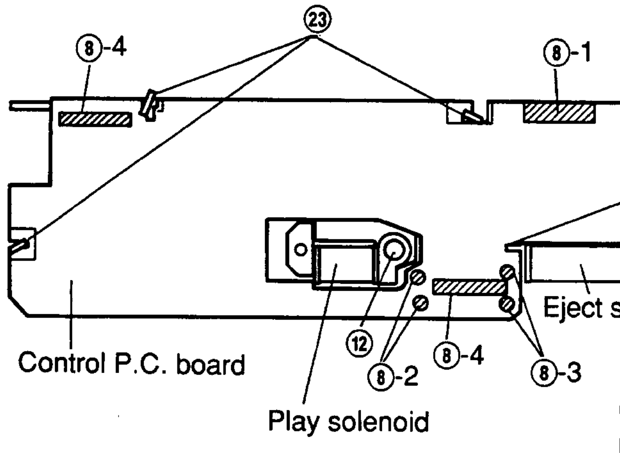
c. Replacement of the flywheels

(1) After removing the belt, pull out the two flywheels. Take care not to loose the polyslider washer ⑪ located between the flywheel and the chassis. (Refer to Figure 12.)
(2) Fix the polyslider washer to the new flywheel and mount the flywheel to the chassis.

d. Replacement of the play solenoid

(1) Remove the two solders ⑧-2 as shown in Figure 11.
(2) Remove one screw ⑫ and remove the solenoid as shown in Figure 11.
(3) Mount the new solenoid following the removal steps in the reverse order.

Note: Refer to Item 2-C to make sure that the temperature of the soldering iron and the soldering time are proper. Fasten the screws with a fastening torque of 2.3 kg.cm.


㉓
⑧-4
⑧-1
㉓
Control P.C. board
Eject solenoid
⑫
⑧-2
⑧-4
⑧-3
Play solenoid

[For GR75E Series model]

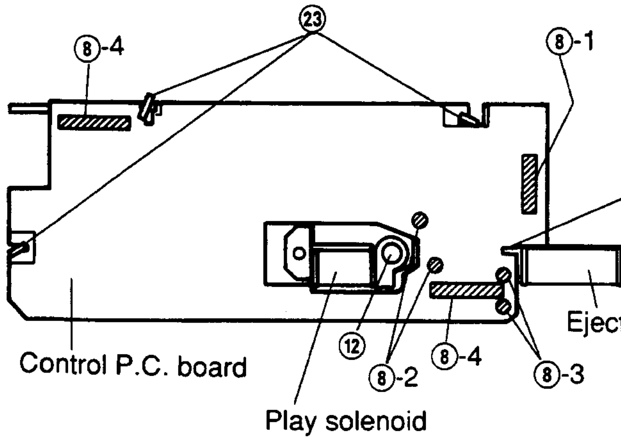

㉓
⑧-4
⑧-1
㉓
Control P.C. board
Eject solenoid
⑫
⑧-2
⑧-4
⑧-3
Play solenoid

Figure 11

[For GR75L Series
GR-Y Series
GR75H Series models]

e. Replacement of the eject solenoid

(1) Remove two solders ⑧-3. Take care not to loose the tube that protects the wire. (Refer to Figure 11.)
(2) Remove screw ⑨ and remove the solenoid as shown in Figure 10.
(3) Align position ⓒ-1 of the new solenoid with position ⓒ-2 of the lever and fasten the screw as shown in Figure 10.
(4) Lead the wire through the tube and solder it.

Note: Refer to Item 2-C to make sure that the temperature of the soldering iron and the soldering time are proper. Fasten the screws with a fastening torque of 3 kg.cm. As the solenoid wires are not insulated, do not let them cross each other.

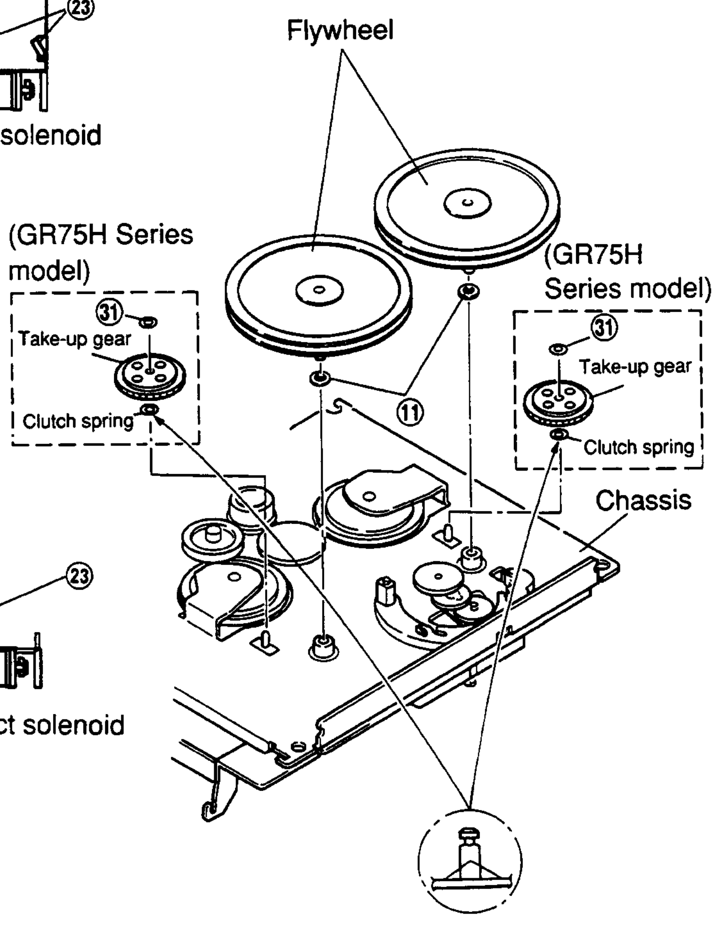

Flywheel
(GR75H Series model)
㉛
Take-up gear
Clutch spring
(GR75H Series model)
㉛
Take-up gear
Clutch spring
⑪
Chassis

Figure 12

f. Replacement of gears

(f-1) Replacement of the reverse idler gear

(1) Remove M1.2 lock washer ⑬, pull it up from the stud of the chassis and remove the gear as shown in Figure 13.

(2) Remount following the removal steps in the reverse order.

(f-2) Replacement of the sun gear

(1) Remove M1.2 lock washer ⑭, pull it up from the stud of the chassis and remove the gear as shown in Figure 13.

(2) Mount it, following the removal steps in the reverse order.

(f-3) Replacement of the fixing gear

(1) Adjust the two mounting claws for the fix gear on the chassis ⑮ and remove the section Ⓒ-3 of the gear by pulling it up in the direction of the arrow shown in Figure 13.

(2) Insert the section Ⓒ-4 of the new gear into the chassis, and mount it following the removal steps in the reverse order as shown in Figure 13.

(f-4) Replacement of the reverse lever assembly and planet gear

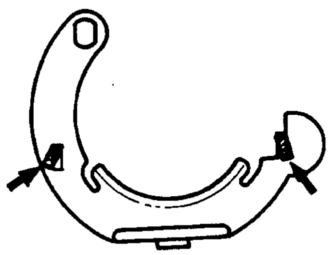
(1) Remove both the fixing gear and the sun gear and remove the reverse lever assembly as shown in Figure 13.

(2) Remove M1.7 lock washer ⑯ and remove the planet gear as shown in Figure 14.

(3) Mount the new planet gear and reverse lever following the removal steps in the reverse order.

Notes on f-1 through f-4:
After mounting all parts, check if the reverse lever moves in the directions marked Ⓒ-5 when the reverse gear is turned clockwise and counterclockwise.

*After mounting the fixing gear, bend the claws ⑮ into the form of as shown in the Figure.



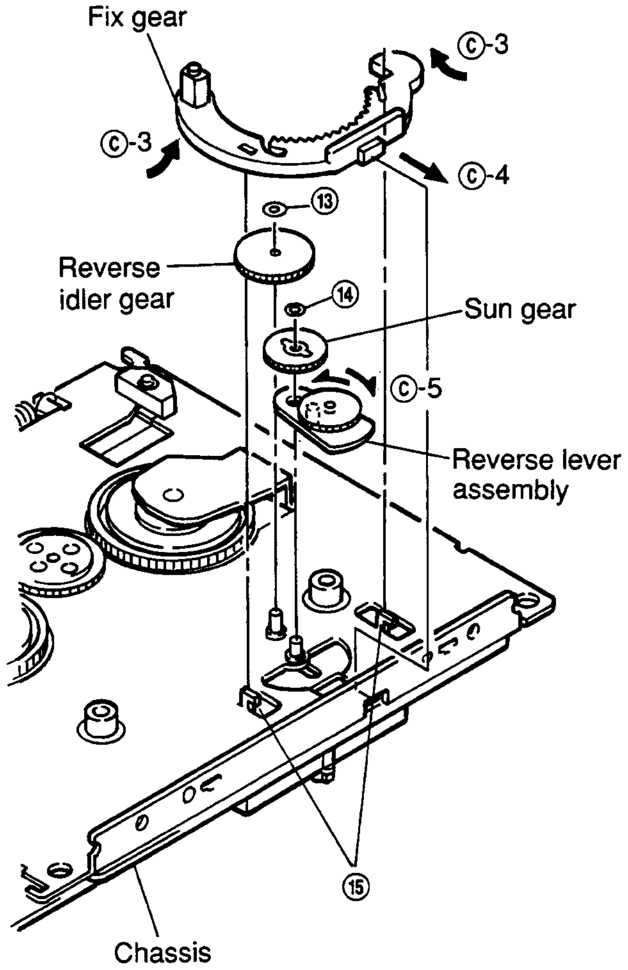


Figure 13

(f-5) Replacement of the clutch lever assembly and eject idler gear

(1) After removing the motor, remove the motor idler gear and the motor idler gear (B) and remove the clutch lever assembly as shown in Figure 10.

(2) Remove M1.2 lock washer ⑰ and remove the eject idler gear as shown in Figure 15.

(3) Mount the new gears and clutch lever following the removal steps in the reverse order.

Note: When mounting the gears to the lever, apply grease (PG-671) to the position Ⓒ-6 as shown in Figure 15. Align the position Ⓒ-7 with the position Ⓒ-8 and mount the clutch lever as shown in Figures 10 and 15.

(f-6) Replacement of the pause gear

(1) Remove M1.2 lock washer ⑱ and remove the pause gear pulling it up from the stud of the chassis as shown in Figure 10.

(2) Mount the new gear following the removal steps in the reverse order.

(f-7) Replacement of the pause idler gear (B)

(1) After removing the motor and the motor idler gear, remove M1.2 lock washer ⑲ and remove the gear by pulling it up from the stud of the chassis as shown in Figure 10.

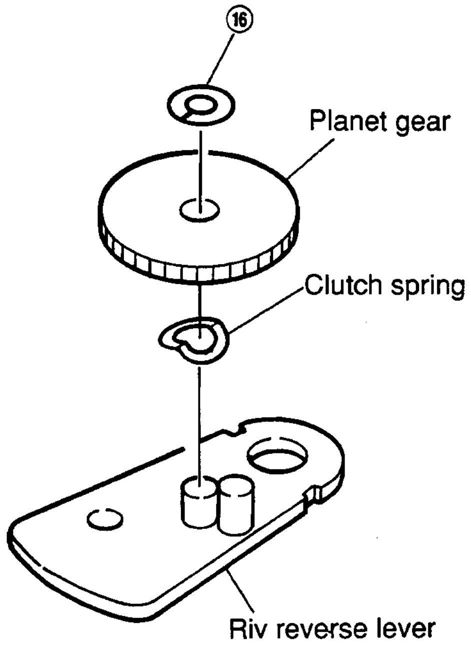
(2) Mount the new gear by following the removal steps in the reverse order.

(f-8) Replacement of the take-up gear

(1) After removing the belt and the pulley idler gear, remove M1.2 lock washer ⑳ by pulling it up from the stud of the riv take-up lever assembly as shown in Figure 10.
After removing the Flywheel, remove M1.2 lock washer ㉛ and remove the gear by pulling it up from the stud of the chassis as shown in figure 12. [For GR75H Series model]

(2) Remount the take-up gear following the removal steps in the reverse order.

Notes on f:
Do not reus e the used washers. Take care to avoid damage by piercing and tearing.



[Disassembly Reverse Lever Assembly]

Figure 14

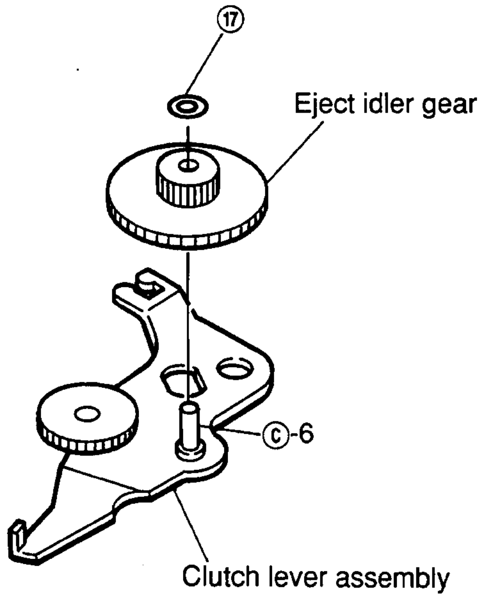


Figure 15

4. Replacement of the parts mounted on the front of the main chassis

a. Replacement of the audio P.C. board

(1) Remove two solders ㉑ and remove the parallel wire (7P) and the head P.C. board as shown in Figure 16.

(2) Adjust the two claws ㉒ to the rectangular holes on the P.C. board and remove the P.C. board as shown in Figure 16.

(3) After replacement, mount the new P.C. board following the removal steps in the reverse order.

Note: The head P.C. board and the parallel wire are easily damaged. Handle them with care. Refer to Item 2-C to make sure that the temperature of the soldering iron and the soldering time are proper. Do not bring the soldering iron near the head P.C. board.

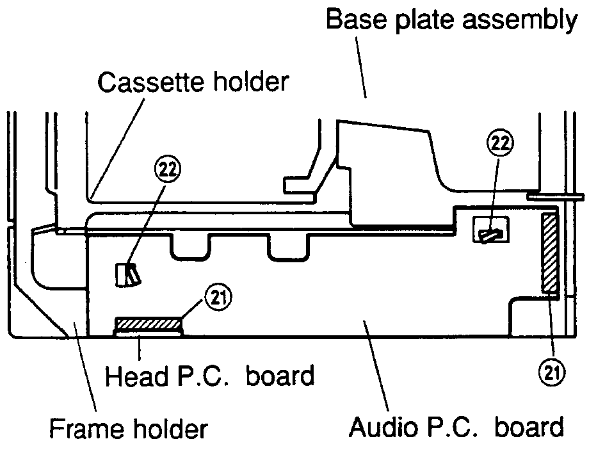


Figure 16

b. Replacement of the control P.C. board

(1) Remove seven solders ⑧ and remove the three parallel wires and the wires of the eject solenoid and of the play solenoid as shown in Figure 11.

(2) Remove five claws ㉓ and remove the P.C. board as shown in Figure 11. [For GR75E Series model] Remove four claws ㉓ and remove the P.C. board as shown in Figure 11. [For GR75L Series, GR-Y Series, GR75H Series models]

(3) After replacing the old P.C. board with a new one, mount it following the removal steps in the reverse order.

Note: As mentioned in Item 4-a, handle the parallel wires carefully, and be sure that the temperature of the soldering iron and the soldering time are proper. As the wires of the eject solenoid are not insulated, do not let them cross each other.

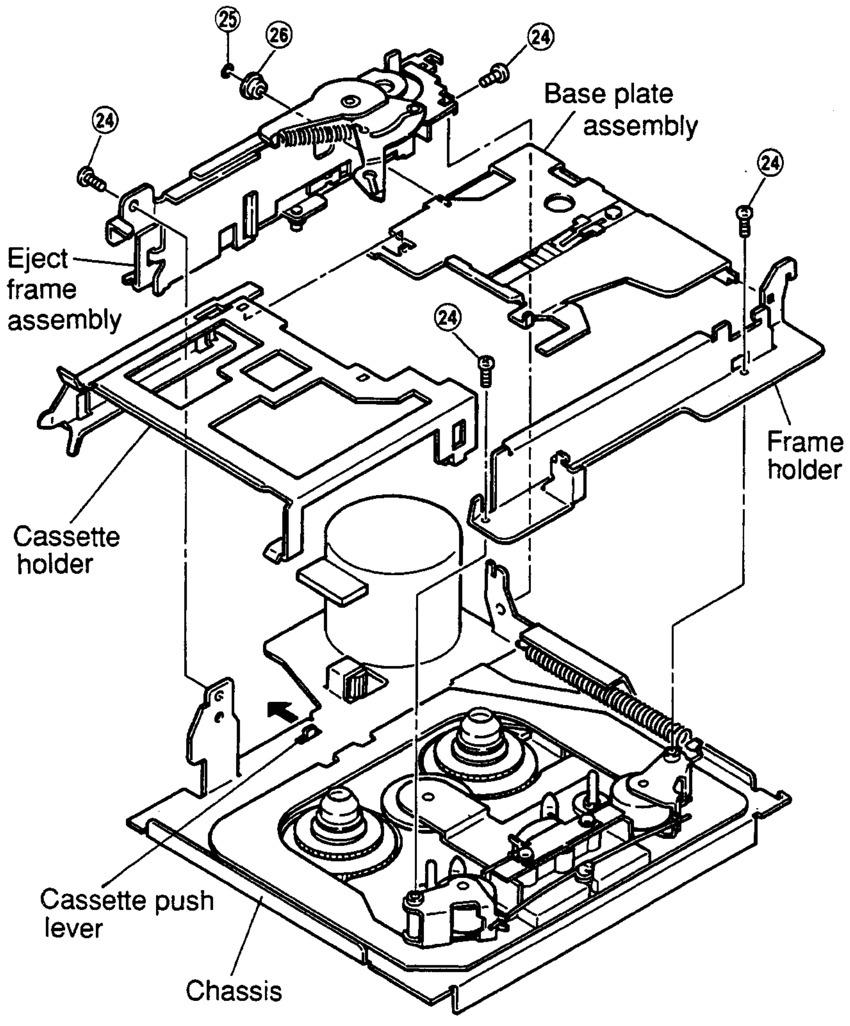


Figure 17

c. Disassembly and assembly of the cassette holder

(1) Remove four screws ㉔ and remove the eject frame assembly and the frame holder as shown in Figure 17.

(2) Remove M1.2 lock washer ㉕ and plate base roller ㉖ and remove the cassette holder and the base plate assembly as shown in Figure 17.

(3) Remount them following the removal steps in the reverse order.

Notes:
1. When mounting the cassette holder and the base plate, insert the slider shaft into the eject arm and fix them turning the slider shaft in the direction indicated by the arrow in the figure. Make sure that the cassette holder and the base plate are in the cassette-in mode during this operation. (Refer to Figure 18).
2. When mounting the eject frame assembly, push the cassette push lever in the direction indicated by the arrow in the Figure 17.
3. When mounting the base plate assembly and the eject frame assembly, or when mounting the eject frame assembly to the chassis, do not apply excessive force to avoid deformations of the eject arm and the frame.
4. Do not reuse the used washers. Take care to avoid damage by piercing and tearing.

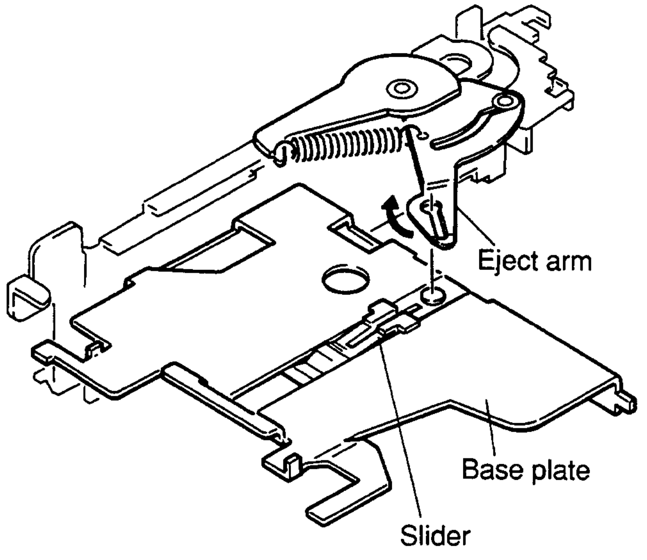


Figure 18

d. Replacement of the reels

(1) Remove M1.7 two lock washers ㉖ (Refer to figure 19).

(2) Move the select lever in the direction marked Ⓓ-1 in the Figure and remove the reel by gripping the reel gear as shown in Figure 19.

(3) After replacement, mount the new reels following the removal steps in the reverse order.

(4) After mounting, check the tape speed and the wow and flutter with test tape MTT-111.

Note: Since the reel is easily loosened if the cap is gripped, always handle it gripping the gear. Do not reuse the used washers. Take care to avoid damage by piercing and tearing.

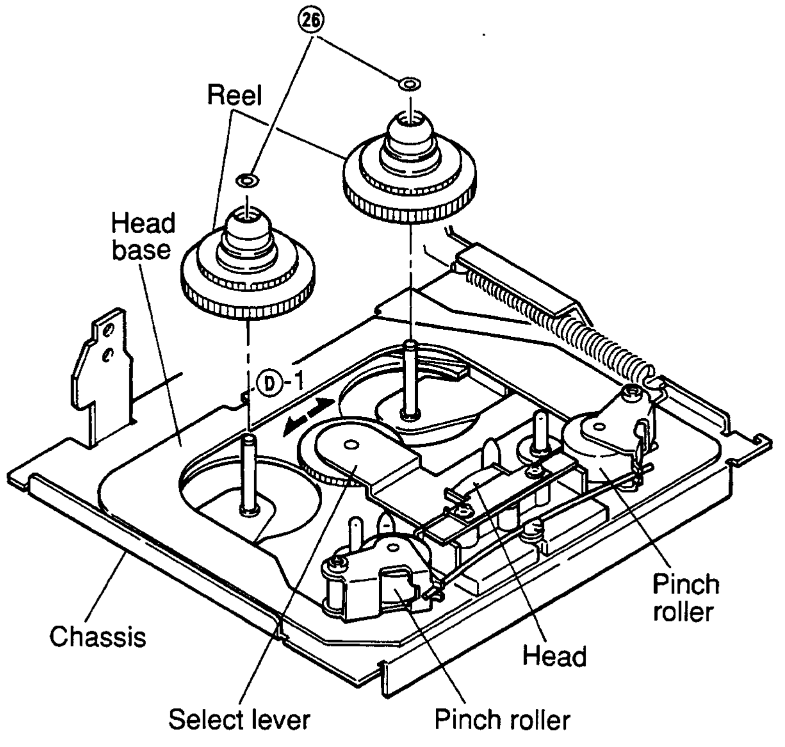


Figure 19

e. Replacement of the pinch rollers

(1) Remove pinch roller spring ㉗ as shown in Figure 20.
(2) Remove M3.1 two lock washers ㉘ and remove the pinch roller as shown in Figure 20.
(3) Mount the pinch rollers following the removal steps in the reverse order.
Apply insulation coating to the position Ⓓ-2 of the pinch roller as shown in Figure 20.

Note: Make sure that the pinch rollers are thoroughly fixed and that they are not deformed. Do not reuse used lock washers. Take care to avoid damage by piercing and tearing.

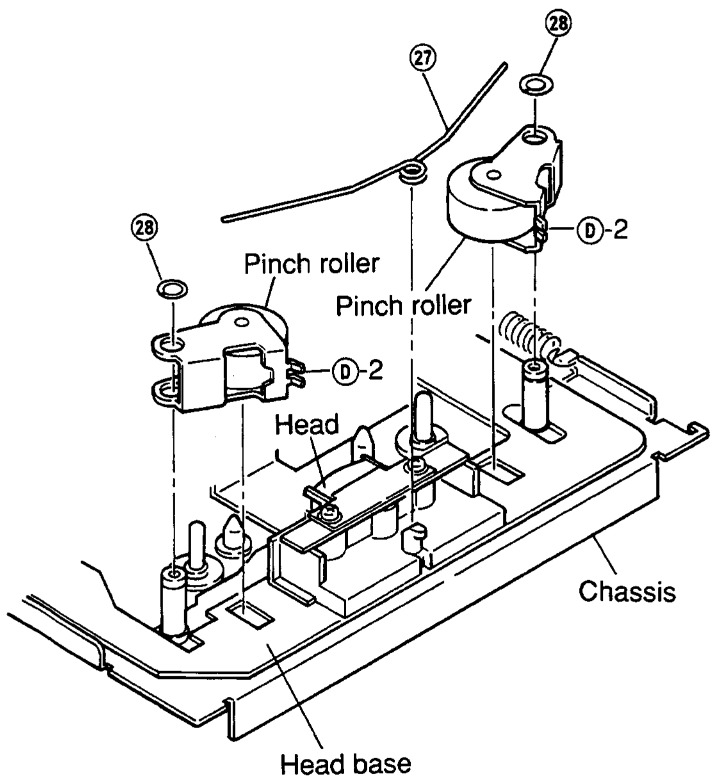

㉘
㉗
㉘
Ⓓ-2
Pinch roller
Pinch roller
Ⓓ-2
Head
Chassis
Head base

Figure 20

f. Replacement of the head

(1) After removing the pinch roller spring, remove two screws ㉙ as shown in Figure 21.
(2) Remove solder ㉚ and remove the head from the head P.C. board as shown in Figure 22.
(3) After replacement, mount the new head following the removal steps in the reverse order.

Notes: 1. Refer to Item 2-C to make sure that the temperature of the soldering iron and the soldering time are proper. Do not bring the soldering iron near the head P.C. board. Make sure that the head P.C. board is not lifted.
2. Fasten the two screws with a fastening torque of 2.3 kg.cm. Note that the tension of the head spring can be decreased if the screws are fastened too strongly.

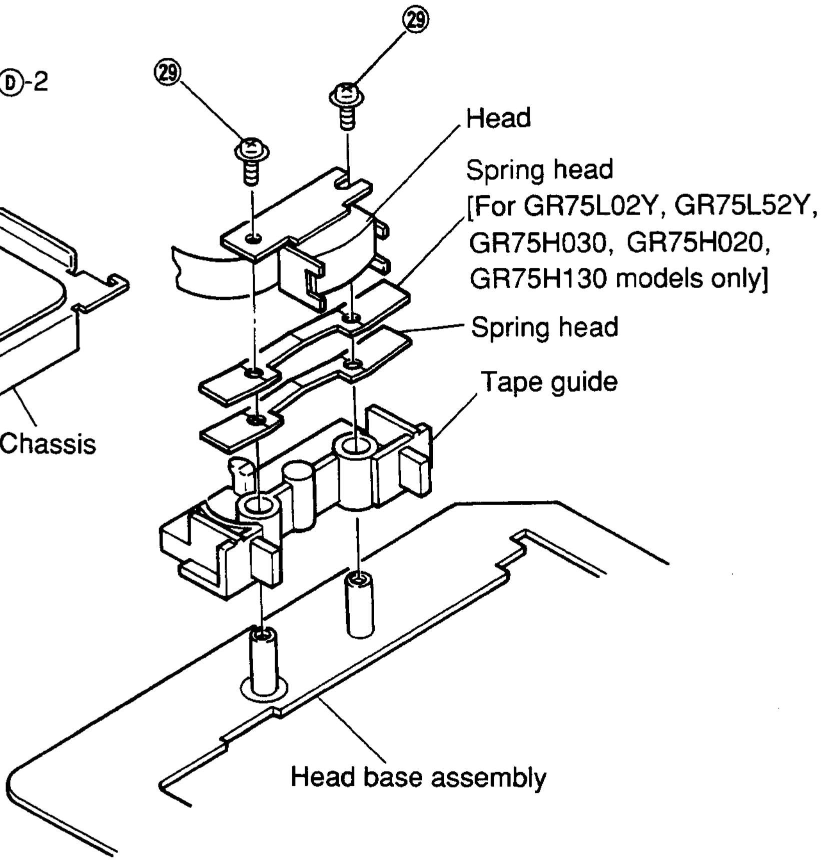

㉙
㉙
Head
Spring head
[For GR75L02Y, GR75L52Y, GR75H030, GR75H020, GR75H130 models only]
Spring head
Tape guide
Head base assembly

Figure 21

(4) Adjust the height of the head as shown in Figures 23, 24 and 25.
① Place the height adjustment gauge (AI-500) on the head base, and adjust the height so that the check bar fits in the tape head guide smoothly.
② When the check bar touches the top (or bottom) of the tape guide, insert a spacer (t 0.1 mm or polislider washer t 0.13 mm).
If necessary, remove the spacer.

Note: If you do not have a height gauge like described in (4)-①, run the tape at normal speed and adjust the height of the head and the tape head guide so that the tape does not curl.

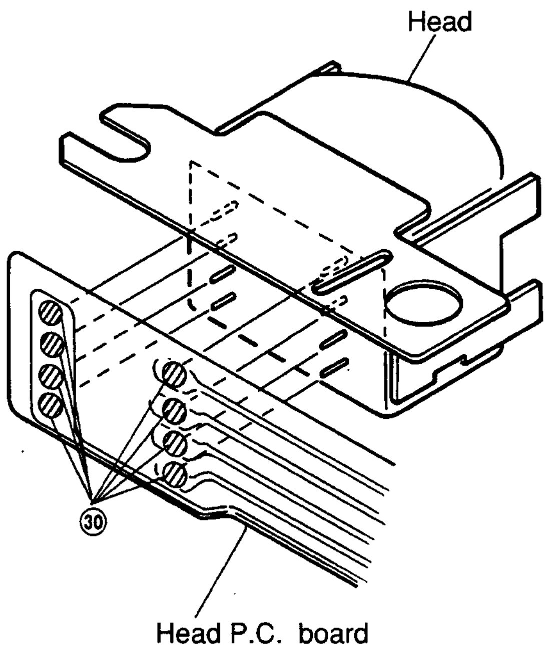

Head
㉚
Head P.C. board

Figure 22

(5) After having assembled the complete mechanism, adjust the angle of the head with test tape MTT-113C. (Refer to chapter "Adjustment of the head angle".) After the adjustment, apply the screw lock and fix the screws.

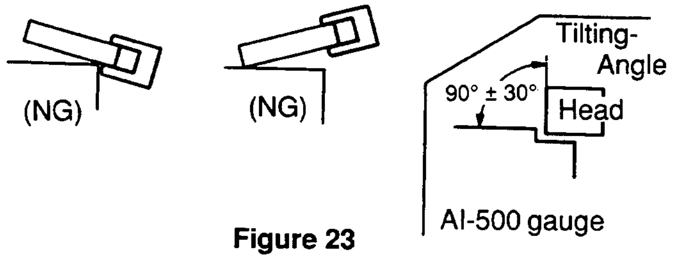

(NG)
(NG)
Tilting-Angle
90° ± 30°
Head
AI-500 gauge

Figure 23

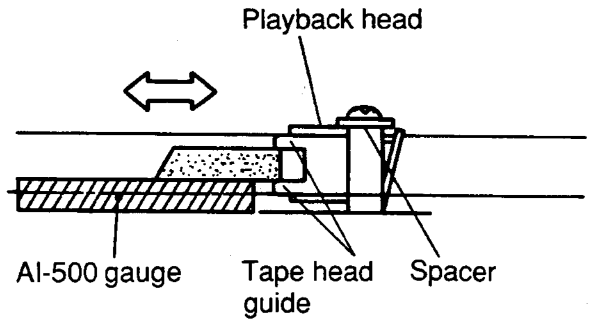
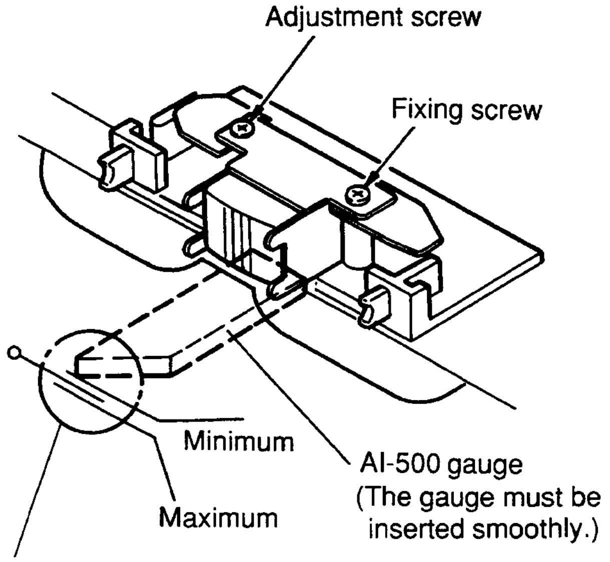

Playback head
AI-500 gauge
Tape head guide
Spacer

Figure 24

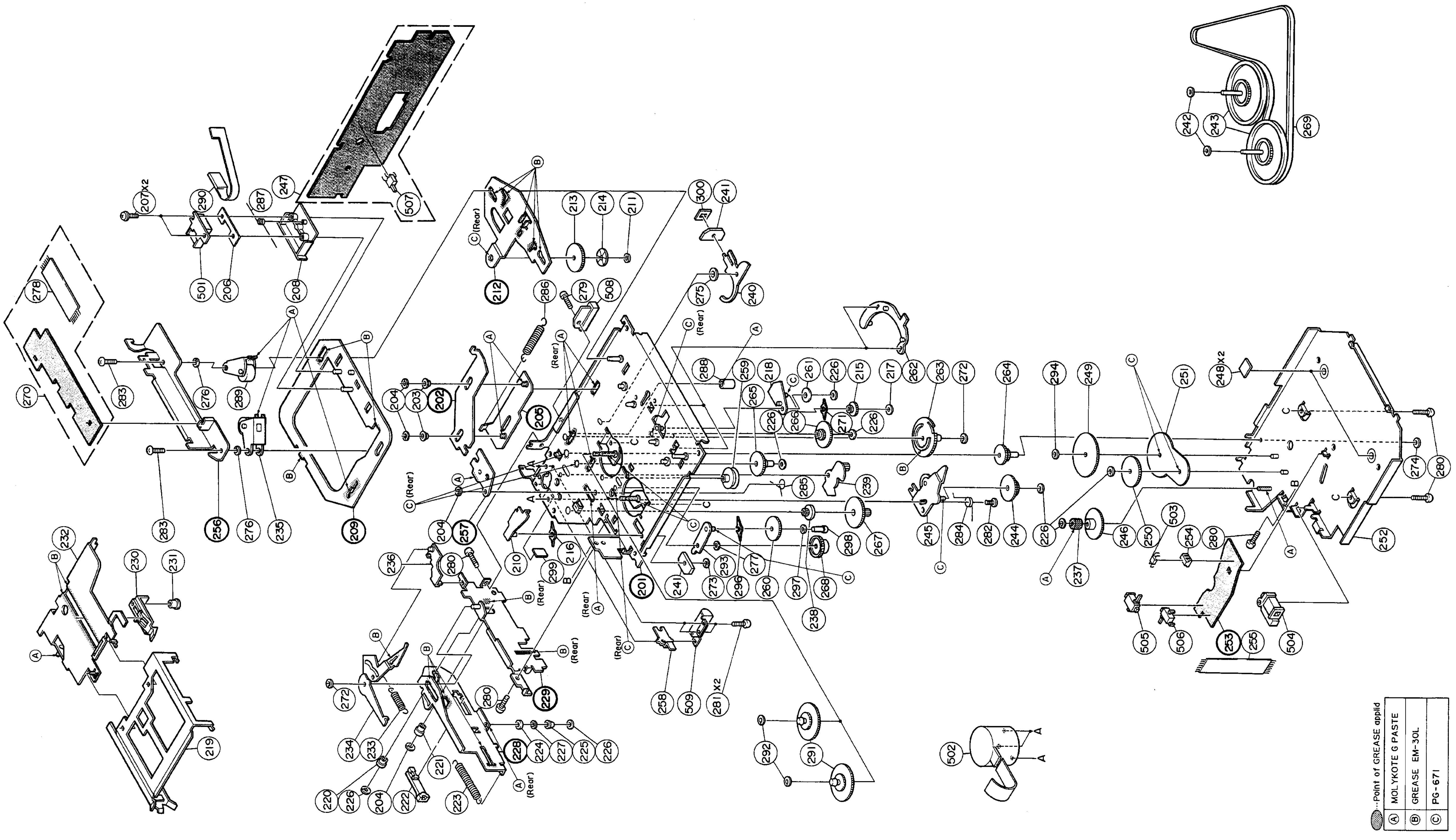

Adjustment screw
Fixing screw
Minimum
Maximum
AI-500 gauge
(The gauge must be inserted smoothly.)

The nosepiece of the gauge must be between the minimum and maximum positions.

Figure 25

Exploded View (GR75E Series) (1/4)

- **For GR75E010/01A/020 Models**


1
2
3
4
5
207X2
290
287
247
507
501
206
208
278
270
283
276
289
256
276
235
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214
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286
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226
215
217
262
263
272
264
294
249
251
248X2
265
226
266
271
226
285
239
245
284
282
244
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246
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503
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274
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267
268
238
258
509
281 X2
229
272
234
233
220
226
204
222
221
223
228
224
227
225
226
280
292
291
502
(Rear)
A
B
C
...Point of GREASE applid
A MOLYKOTE G PASTE
B GREASE EM-30L
C PG-671
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Cassette Deck Assembly Parts List (GR75E Series) (1/4)

Note : The parts without parts list are not supplied.

Symbol No.	IN-dex	Part No.	Description
203	3-C	43A11072W01	Roller, Sub Head
204		04B41345P01	Washer, Lock(M1.2)
206	2-B	41A31756W01	Spring, Head
207	2-B	03S40019G03	Screw, F-Locks(M2x4)
208	2-B	43B12545W01	Tape, Guide
210	4-C	01A10206W01	Assy., Riv Lever R/F Sol
211	2-D	04B41345P29	Washer, Lock(M2.6)
213	2-D	44A10295W01	Gear, Sensor
214	2-D	14A10681W01	Reflector
215	3-E	44A30480W01	Gear, Planet
216	3-E	41A10097W02	Spring, Clutch
217	3-E	04B41345P35	Washer, Lock(M1.7)
218	3-E	01A30824W01	Assy., Riv Lever Reverse
● 219	4-B	07B40283W01	Holder, Cassette
■ 219	4-B	07B40283W01	Holder, Cassette
▲ 219	4-B	07B10074W01	Holder, Cassette
220	5-B	43A12583W01	Roller, Eject
221	5-C	43A63281F01	Roller, Plate Base
222	5-C	44A82206F01	Rack
223	5-C	41B10386W03	Spring, GR(Rack)
224	4-C	43A10121W01	Roller, Eject A
225	4-D	43A10360W01	Roller, Eject B
226		04B41345P11	Washer, Lock(M1.2)
227	4-D	43A12377W01	Roller, Eject C
230	4-A	45B10376W01	Slider
231	4-B	47A63278F01	Shaft, Slider
232	4-A	01A10212W01	Assy.,Riv Plate Base
233	4-C	41B10386W01	Spring, Eject Arm
234	4-B	01A10148W01	Assy., Riv Eject Arm A
235	3-B	01B30863W02	Assy., Pinch Roller
236	4-C	45A10087W01	Lever Pack In SW
237	4-F	44A12975W01	Pinion, Eject
238	4-E	44A13617W01	Gear, Motor Idler(B)
239	3-E	01A10201W02	Assy., Riv Lever Pause
240	2-D	45A40725W01	Lever, Play Sol
241		76T10374W01	Chip
242	1-G	04S40075G05	Washer Polyslider (M2.1)
243	1-G	01A10368W01	Assy., Flywheel
244	3-F	44A10141W01	Gear, Eject Idler
245	3-E	01A10205W02	Assy., Riv Lever Clutch A

Notes:● ; For GR75E020 model only ■ ; For GR75E010 model only
▲ ; For GR75E01A model only Others ; Common

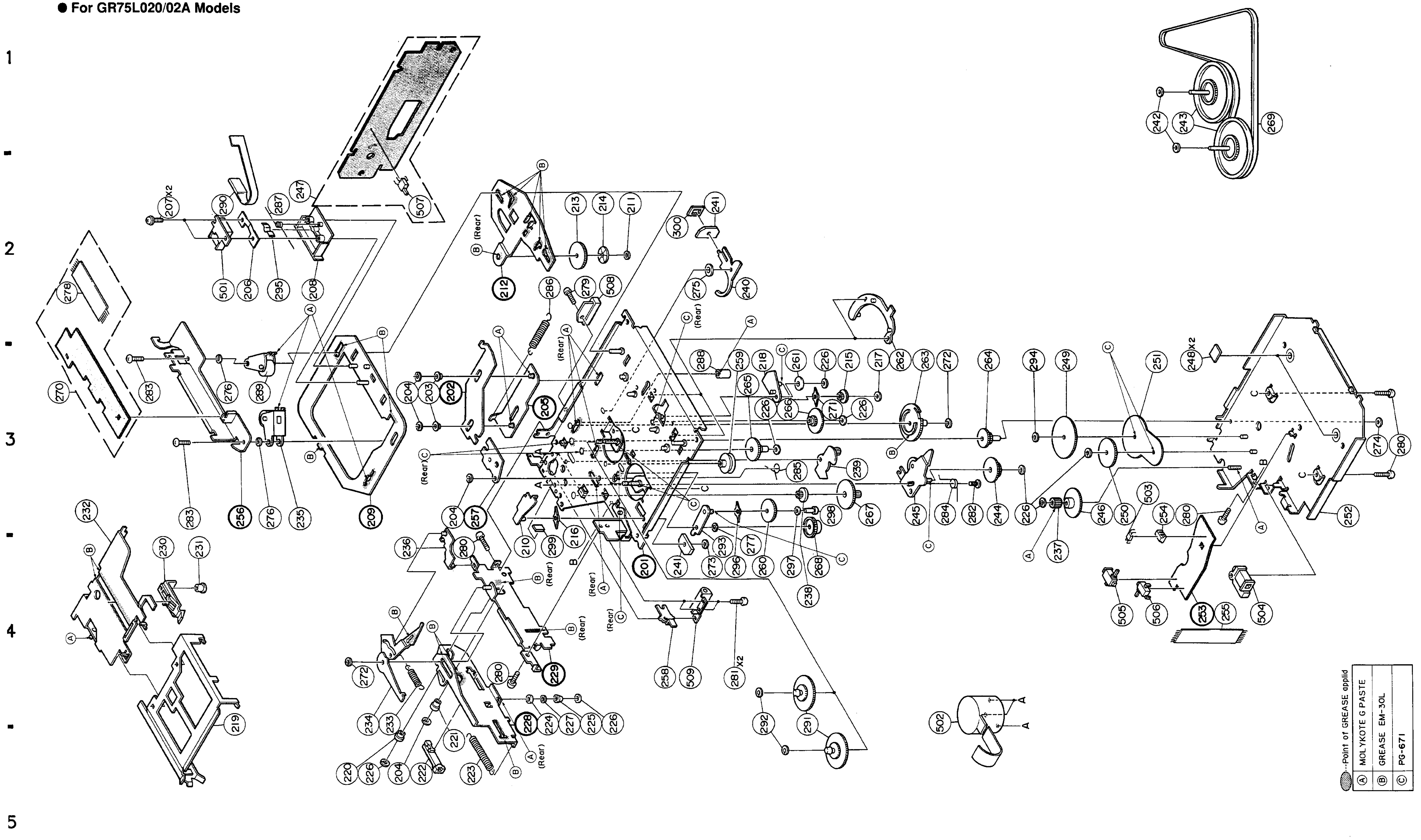
Symbol No.	IN-dex	Part No.	Description
246	3-F	44A10145W01	Gear, Eject
247	2-B	01V11500W18	Assy., GR Control P.C. Board
248	3-G	43A41656W01	Spacer, UHMW
249	3-F	44A11063W01	Gear, Bottom A
250	3-F	44A11064W01	Gear, Bottom B
251	3-G	34A11122W02	Washer, GR
252	3-H	01A10210W02	Assy., Riv. Cover Bottom
254	3-G	15B11065W01	Guide, Photo
255	4-G	30T15126W01	Wire, PC Sensor(7P)
258	4-D	45A10101W01	Lever, Eject Sol
259	3-D	49A10131W01	Pulley, Idler
260	4-E	44A10133W01	Gear, Take Up
261	3-E	44A10134W01	Gear, Sun
262	3-E	44B10135W01	Gear, Fix
263	3-E	44B30484W01	Gear, Pause
264	3-F	44A10137W01	Gear, Pause Idler A
265	3-D	44A10379W01	Gear, Pause Idler B
266	3-E	44A10138W01	Gear, Reverse Idler
267	3-E	44A10139W01	Gear, Motor Idler
268	4-E	44A11062W01	Gear, Reel Idler
269	1-G	42A10380W01	Belt, GR
● 270	3-A	01V14700W68	Assy., GR Audio P.C. Board
■ 270	3-A	01V11500W19	Assy., GR Audio P.C. Board
▲ 270	3-A	01V11500W19	Assy., GR Audio P.C. Board
271	3-E	41A30475W01	Spring, Clutch
272		04B41345P15	Washer, Lock(M1.2)
273	4-D	04B41345P02	Washer, Lock(M1.7)
274	3-H	04B41345P17	Washer, Lock(M1)
275	2-D	04B41345P30	Washer, Lock(M3.1)
276		04B41345P32	Washer, Lock(M3.1)
277	4-E	04B41345P37	Washer, Lock(M2.1)
278	2-A	30T15126W02	Wire, PC Joint 7P
279	2-D	03S44205G78	Screw, Pan(M2x6)
280		03S44205G30	Screw, Pan(M2.6x4)
281	4-D	03S72235F53	Screw, Pan(M2x3.3)
282	3-F	03A12132W02	Screw, Eject Clutch (M2x2.3)
283		03S43997P64	Screw, Pan(M1.7x3)
284	3-F	41A10384W01	Spring, Eject Clutch
285	3-E	41A10385W01	Spring, Cas Push
286	2-C	41B10386W02	Spring, Sub Head

Symbol No.	IN-dex	Part No.	Description
287	2-B	41A10387W01	Spring, Pinch Roller
288	3-D	43A12719W01	Roller, Pause
289	3-B	01B30863W01	Assy., Pinch Roller
290	2-B	84T25151W01	Head P.C. Board
291	4-E	01T35403W01	Assy., Reel
292	4-E	04B41345P12	Washer, Lock(M1.7)
293	4-D	01A30161W01	Assy., Riv Lever Take Up
294	3-F	04B41345P34	Washer Lock(M1.2)
296	4-D	41A40910W01	Spring, Clutch
297	4-E	43A41543W01	Washer, Som(M1.2)
298	3-E	47A41458W01	Pin, Take Up
299	4-C	43A40388W01	Spacer, Polyslider
300	2-D	43A41744W01	Lock, Solenoid
Miscellaneous			
● 501	2-B	88T15971W01	Head
■ 501	2-B	88T10373W01	Head
▲ 501	2-B	88T10373W01	Head
502	4-E	01V11500W64	Assy., Motor(Main, 13.2V-80mA)
503	3-G	51T15144W01	Sensor, Photo
504	4-G	01T10371W01	R/F Sol. Assy.
505	4-F	40T15382W01	SW., Detector (Pack Down)
506	4-G	40T15382W01	SW., Detector(Metal)
507	2-C	40T15222W01	SW., Detector (Pack In)
508	2-D	01T15249W01	Assy., Play Solenoid
509	4-D	01T10369W02	Assy., Eject Solenoid

Notes:● ; For GR75E020 model only ■ ; For GR75E010 model only
▲ ; For GR75E01A model only Others ; Common

Exploded View (GR75L Series) (2/4)

- **For GR75L020/02A Models**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...Point of GREASE applid

Ⓐ	MOLYKOTE G PASTE
Ⓑ	GREASE EM-30L
Ⓒ	PG-671

Cassette Deck Assembly Parts List (GR75E Series) (2/4)

Note : The parts without parts list are not supplied.

Symbol No.	IN-dex	Part No.	Description
203	3-C	43A11072W01	Roll. Sub Head
204		04B41345P01	Washer. Lock(M1.2)
206	2-B	41A31756W01	Spring. Head
207	2-B	03S40019G03	Screw. F-Locks(M2x4)
208	2-B	43B12545W01	Tape. Guide
210	4-C	01A10206W01	Assy.. Riv Lever R/F Sol.
211	2-D	04B41345P29	Washer. Lock(M2.6)
213	2-D	44A10295W01	Gear. Sensor
214	2-D	14A10681W01	Reflector
215	3-E	44A30480W01	Gear. Planet
216	3-E	41A10097W02	Spring. Clutch
217	3-E	04B41345P35	Washer. Lock(M1.7)
218	3-E	01A30824W01	Assy.. Riv Lever Reverse
219	4-B	07B40283W01	Holder. Cassette
220	5-B	43A12583W01	Roller. Eject
221	5-C	43A63281F01	Roller. Plate Base
222	5-C	44A82206F01	Rack
223	5-C	41B10386W03	Spring. GR(Rack)
224	4-C	43A10121W01	Roller. Eject(A)
225	4-D	43A10360W01	Roller. Eject(B)
226		04B41345P11	Washer. Lock(M1.2)
227	4-D	43A12377W01	Roller. Eject(C)
230	4-A	45B10376W01	Slider
231	4-B	47A63278F01	Shaft. Slider
232	4-A	01A10212W01	Assy.. Riv Plate Base
233	4-C	41B10386W01	Spring. Eject Arm
234	4-B	01A21754W01	Assy.. Riv Eject Arm(A)
235	3-B	01B30863W02	Assy.. Pinch Roller
236	4-C	45A10087W01	Lever. Pack In SW.
237	4-F	44A20314W01	Pinion. Eject
238	4-E	44A13617W01	Gear. Motor Idler(B)
239	3-E	01A10201W02	Assy.. Riv Lever Pause
240	2-E	45A40725W01	Lever. Play Sol
241		76T10374W01	Chip
242	1-G	04S40075G05	Washer. Polyslider (M2.1)
243	1-G	01A10368W01	Assy.. Flywheel
244	3-F	44A10141W01	Gear. Eject Idler
245	3-E	01A10205W02	Assy.. Riv Lever Clutch(A)
246	3-F	44A10145W01	Gear. Eject
247	2-B	01V23700W03	Assy.. GR Control P.C. Board
248	3-G	43A41656W01	Spacer. UHMW
249	3-F	44A11063W01	Gear. Bottom(A)
250	3-F	44A11064W01	Gear. Bottom(B)
251	3-G	34A11122W02	Washer. GR
252	3-H	01A10210W02	Assy.. Riv. Cover Bottom
254	3-G	15B11065W01	Guide. Photo
255	4-G	30T15126W01	Wire. PC Sensor(7P)
258	4-D	45A10101W01	Lever. Eject Sol.
259	3-D	49A10131W01	Pulley. Idler
260	4-E	44A10133W01	Gear. Take Up
261	3-E	44A10134W01	Gear. Sun
262	3-E	44B10135W01	Gear. Fix
263	3-E	44B21670W01	Gear. Pause
264	3-F	44A10137W01	Gear. Pause Idler(A)
265	3-D	44A10379W01	Gear. Pause Idler(B)
266	3-E	44A10138W01	Gear. Reverse Idler
267	3-E	44A10139W01	Gear. Motor Idler
268	4-E	44A11062W01	Gear. Reel Idler
269	1-G	42A10380W01	Belt. GR
270	3-A	01V14700W68	Assy.. GR Audio P.C. Board
271	3-E	41A30475W01	Spring. Clutch
272	3-F	04B41345P15	Washer. Lock(M1.2)
273	4-D	04B41345P02	Washer. Lock(M1.7)
274	3-H	04B41345P17	Washer. Lock(M1)
275	2-D	04B41345P30	Washer. Lock(M3.1)
276		04B41345P32	Washer. Lock(M3.1)
277	4-E	04B41345P37	Washer. Lock(M2.1)
278	2-A	30T15126W02	Wire. PC Joint 7P
279	2-D	03S44205G78	Screw. Pan(M2x6)
280		03S44205G30	Screw. Pan(M2.6x4)
281	4-D	03S72235F53	Screw. Pan(M2x3.3)
282	3-F	03A12132W02	Screw. Eject Clutch (M2x2.3)
283		03S43997P64	Screw. Pan(M1.7x3)
284	3-F	41A10384W01	Spring. Eject Clutch
285	3-E	41A10385W01	Spring. Cas. Push
286	2-C	41B10386W02	Spring. Sub Head
287	2-B	41A10387W01	Spring. Pinch Roller
288	3-D	43A12719W01	Roller. Pause
289	3-B	01B30863W01	Assy.. Pinch Roller
290	2-B	84T25151W01	Head P.C. Board

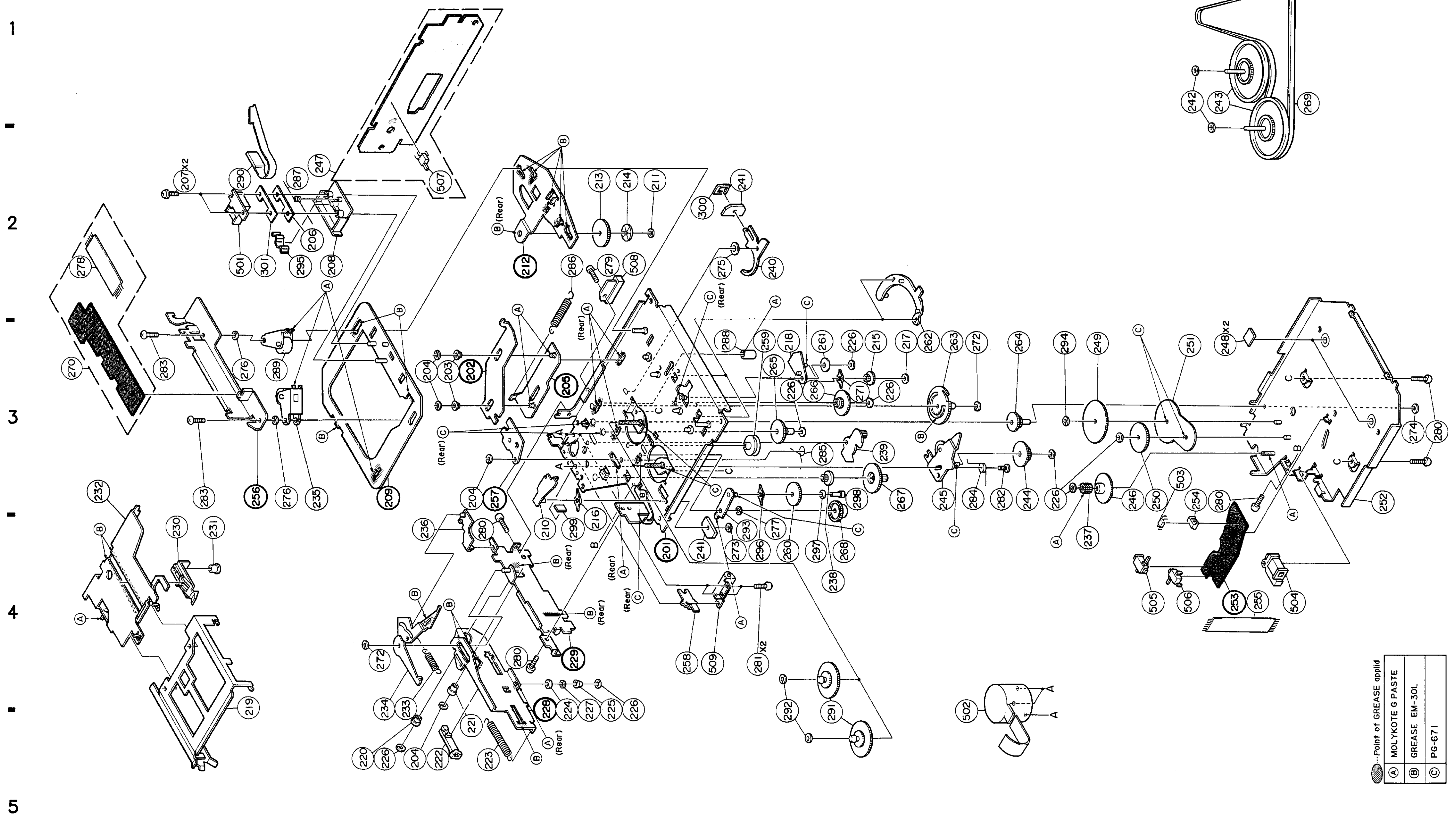
Notes : ◆ ; For GR75L020 model only ○ ; For GR75L02A model only
Others ; Common

Symbol No.	IN-dex	Part No.	Description
291	4-E	01T35403W02	Assy.. Reel
292	4-E	04B41345P12	Washer. Lock(M1.7)
293	4-D	01A30161W01	Assy.. Riv Lever Take Up
294	3-F	04B41345P34	Washer. Lock(M1.2)
295	2-B	26A20537W01	Shield. Plate
296	4-D	41A40910W01	Spring. Clutch
297	4-E	43A41543W01	Washer. Som(M1.2)
298	3-E	47A41458W01	Pin. Take Up
299	3-D	43A40388W01	Spacer. Polyslider
300	2-D	43A41744W01	Lock. Solenoid
Miscellaneous			
501	2-B	88T15971W01	Head
◆ 502	4-E	01V23900W60	Assy.. Motor(13.2V-105mA)
○ 502	4-E	01V43400W37	Assy.. Motor(13.2V-88mA)
503	3-G	51T15144W01	Sensor. Photo
504	4-G	01T10371W01	R/F Sol. Assy
505	4-F	40T15382W01	SW.. Detector (Pack Down)
506	4-G	40T15382W01	SW.. Detector (Metal)
507	2-C	40T15222W01	SW.. Detector (Pack In)
508	2-D	01T15249W01	Assy.. Play Solenoid
509	4-D	01T10369W02	Assy.. Eject Solenoid

Notes : ◆ ; For GR75L020 model only ○ ; For GR75L02A model only
Others ; Common

Exploded View (GR-Y Series) (3/4)

- **For GR75L02Y/52Y Model**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●	…Point of GREASE applid
Ⓐ	MOLYKOTE G PASTE
Ⓑ	GREASE EM-30L
Ⓒ	PG-671

Cassette Deck Assembly Parts List (GR-Y Series) (3/4)

Note : The parts without parts list are not supplied.

	Symbol No.	IN-dex	Part No.	Description
	203	3-C	43A11072W01	Roll. Sub Head
	204		04B41345P01	Washer, Lock(M1.2)
	206	2-B	41A31756W01	Spring, Head
	207	2-B	03S40019G03	Screw, F-Locks(M2x4)
	208	2-B	43B12545W01	Tape, Guide
	210	4-C	01A10206W01	Assy., Riv Lever R/F Sol.
	211	2-D	04B41345P29	Washer, Lock(M2.6)
	213	2-D	44A10295W01	Gear, Sensor
	214	2-D	14A10681W01	Reflector
	215	3-E	44A30480W01	Gear, Planet
	216		41A10097W02	Spring, Clutch
	217	3-E	04B41345P35	Washer, Lock(M1.7)
	218	3-E	01A30824W01	Assy., Riv Lever Reverse
	219	4-B	07B40283W01	Holder, Cassette
	220	5-B	43A12583W01	Roller, Eject
	221	5-C	43A63281F01	Roller, Plate Base
	222	5-C	44A82206F01	Rack
	223	5-C	41B10386W03	Spring, GR(Rack)
	224	4-C	43A10121W01	Roller, Eject(A)
	225	4-D	43A10360W01	Roller, Eject(B)
	226		04B41345P11	Washer, Lock(M1.2)
	227	4-D	43A12377W01	Roller, Eject(C)
	230	4-A	45B10376W01	Slider
	231	4-B	47A63278F01	Shaft, Slider
	232	4-A	01A10212W01	Assy., Riv Plate Base
	233	4-C	41B10386W01	Spring, Eject Arm
	234	4-B	01A21754W01	Assy., Riv Eject Arm(A)
	235	3-B	01B30863W02	Assy., Pinch Roller
	236	4-C	45A10087W01	Lever, Pack In SW.
	237	4-F	44A20314W01	Pinion, Eject
	238	4-E	44A13617W01	Gear, Motor Idler(B)
	239	3-E	01A10201W02	Assy., Riv Lever Pause
	240	2-D	45A40725W01	Lever, Play Sol.
	241		76T10374W01	Chip
	242	1-G	04S40075G05	Washer, Polyslider (M2.1)
	243	1-G	01A10368W01	Assy., Flywheel
	244	3-F	44A10141W01	Gear, Eject Idler
	245	3-E	01A10205W02	Assy., Riv Lever Clutch(A)
	246	3-F	44A10145W01	Gear, Eject
☆	247	2-B	01V23700W03	Assy., GR Control P.C. Board
◇	247		01V44200W74	Assy., GR Control P.C. Board
	248	3-G	43A41656W01	Spacer, UHMW
	249	3-F	44A11063W01	Gear, Bottom(A)
	250	3-F	44A11064W01	Gear, Bottom(B)
	251	3-G	34A11122W02	Washer, GR
	252	3-H	01A10210W02	Assy., Riv. Cover Bottom
	254	3-G	15B11065W01	Guide, Photo
	255	4-G	30T15126W01	Wire, PC Sensor(7P)
	258	4-D	45A10101W01	Lever, Eject Sol.
	259	3-D	49A10131W01	Pulley, Idler
	260	4-E	44A10133W01	Gear, Take Up
	261	3-E	44A10134W01	Gear, Sun
	262	3-E	44B10135W01	Gear, Fix
	263	3-E	44B21670W01	Gear, Pause
	264	3-F	44A10137W01	Gear, Pause Idler(A)
	265	3-D	44A10379W01	Gear, Pause Idler(B)
	266	3-E	44A10138W01	Gear, Reverse Idler
	267	3-E	44A10139W01	Gear, Motor Idler
	268	4-E	44A11062W01	Gear, Reel Idler
	269	1-G	42A10380W01	Belt, GR
	270	3-A	01V33300W03	Assy., GR Audio P.C. Board
	271	3-E	41A30475W01	Spring, Clutch
	272	3-F	04B41345P15	Washer, Lock(M1.2)
	273		04B41345P02	Washer, Lock(M1.7)
	274	3-H	04B41345P17	Washer, Lock(M1)
	275	2-D	04B41345P30	Washer, Lock(M3.1)
	276	3-B	04B41345P32	Washer, Lock(M3.1)
	277	4-E	04B41345P37	Washer, Lock(M2.1)
	278	2-A	30T15126W02	Wire, PC Joint 7P
	279	2-D	03S44205G78	Screw, Pan(M2x6)
	280		03S44205G30	Screw, Pan(M2.6x4)
	281	4-D	03S72235F53	Screw, Pan(M2x3.3)
	282	3-F	03A12132W02	Screw, Eject Clutch (M2x2.3)
	283		03S43997P64	Screw, Pan(M1.7x3)
	284	3-F	41A10384W01	Spring, Eject Clutch
	285	3-E	41A10385W01	Spring, Cas. Push
	286	2-C	41B10386W02	Spring, Sub Head
	287	2-B	41A10387W01	Spring, Pinch Roller
	288	3-D	43A12719W01	Roller, Pause
	289	3-B	01B30863W01	Assy., Pinch Roller
	290	2-B	84T35271W01	Head P.C. Board

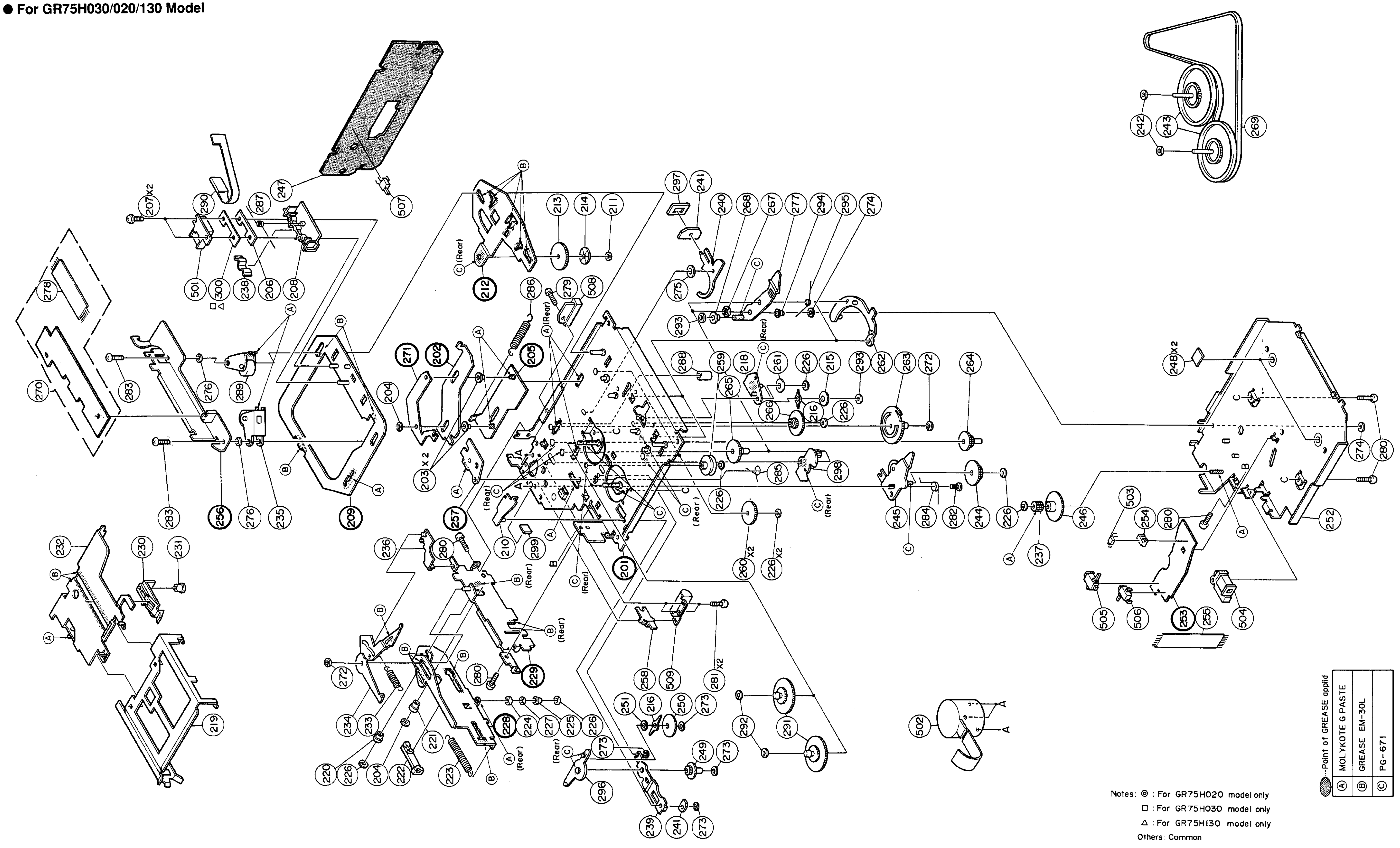
Notes:☆ ; For GR75L02Y model only ◇ ; For GR75L52Y model only
Others ; Common

	Symbol No.	IN-dex	Part No.	Description
	291	4-E	01T35403W02	Assy., Reel
	292	4-E	04B41345P12	Washer, Lock(M1.7)
	293	4-D	01A30161W01	Assy., Riv Lever Take Up
	294	3-F	04B41345P34	Washer, Lock(M1.2)
	295	2-B	26A20537W01	Shield, Plate
	296	4-D	41A40910W01	Spring, Clutch
	297	4-E	43A41543W01	Washer, Som(M1.2)
	298	3-E	47A41458W01	Pin, Take Up
	299	3-C	43A40388W01	Spacer, Polyslider
	300	2-D	43A41744W01	Lock, Solenoid
	301	2-B	41A41416W01	Spring, Head
Miscellaneous				
	501	2-B	88T15971W01	Head
☆	502	4-E	01V23900W60	Assy., Motor(13.2V-105mA)
◇	502	4-E	01V44200W73	Assy., Motor(13.2V-80mA)
	503	3-G	51T15144W01	Sensor, Photo
	504	4-G	01T10371W01	R/F Sol. Assy
	505	4-F	40T15382W01	SW., Detector (Pack Down)
	506	4-G	40T15382W01	SW., Detector (Metal)
	507	2-C	40T15222W01	SW., Detector (Pack In)
	508	2-D	01T15249W01	Assy., Play Solenoid
	509	4-D	01T10369W02	Assy., Eject Solenoid

Notes:☆ ; For GR75L02Y model only ◇ ; For GR75L52Y model only
Others ; Common

Exploded View (GR75H Series) (4/4)

● **For GR75H030/020/130 Model**


1
2
3
4
5
207 X2
290
287
247
507
501
300
238
206
208
278
270
283
276
289
A
B
256
276
235
283
209
204
271
202
205
203 X 2
212
C (Rear)
213
214
211
286
279
508
A (Rear)
297
241
240
268
267
277
294
295
274
C
275
293
C (Rear)
288
259
218
261
226
215
293
262
263
272
264
265
266
216
226
285
298
C (Rear)
226
260 X2
226 X2
245
284
282
244
226
237
246
248 X2
274
280
252
503
254
280
505
506
253
255
504
242
243
269
257
210
299
(Rear)
201
B
C (Rear)
236
280
B (Rear)
B (Rear)
229
232
230
231
219
272
234
233
221
220
226
204
222
223
280
228
224
227
225
226
A (Rear)
258
509
281 X2
251
216
250
273
292
291
502
296
273
249
273
239
241
273

Notes: ◎ : For GR75H020 model only
□ : For GR75H030 model only
△ : For GR75H130 model only
Others : Common

▨ ···Point of GREASE applid	
Ⓐ	MOLYKOTE G PASTE
Ⓑ	GREASE EM-30L
Ⓒ	PG-671

Cassette Deck Assembly Parts List (GR75H Series) (4/4)

Note : The parts without parts list are not supplied.

Symbol No.		IN-dex	Part No.	Description
	203	3-C	43A31453W01	Roller, Sub Head
	204		04B41345P01	Washer, Lock(M1.2)
	206	2-B	41A31756W01	Spring, Head
	207	2-A	03A38021W01	Screw, Flange(M2x4)
	208	2-B	43B12545W01	Tape, Guide
	210	4-C	01A30462W01	Assy., Riv Lever R/F Sol
	211	2-D	04B41345P29	Washer, Lock(M2.6)
	213	2-D	44A10295W01	Gear, Sensor
	214	2-D	14A10681W01	Reflector
	215	3-E	44A30480W01	Gear, Planet
	216		41A30475W01	Spring, Clutch
	218	3-E	01A30824W01	Assy., Riv Lever Reverse
◎	219	4-B	07B40283W01	Holder, Cassette
□	219	4-B	07B40283W01	Holder, Cassette
△	219	4-B	07B40012W01	Holder, Cassette
	220	5-B	43A12583W01	Roller, Eject
	221	5-C	43A63281F01	Roller, Plate Base
	222	5-C	44A82206F01	Rack
◎	223	5-C	41B10386W03	Spring, GR(Rack)
□	223	5-C	41B10386W03	Spring, GR(Rack)
△	223	5-C	41B10386W04	Spring, GR(Rack)
	224	5-C	43A10121W01	Roller, Eject A
	225	5-D	43A10360W01	Roller, Eject B
	226		04B41345P11	Washer, Lock(M1.2)
	227	5-D	43A12377W01	Roller, Eject C
	230	4-A	45B10376W01	Slider
	231	4-B	47A63278F01	Shaft, Slider
◎	232	4-A	01A10212W01	Assy., Riv Plate Base
□	232	4-A	01A10212W01	Assy., Riv Plate Base
△	232	4-A	01A40024W01	Assy., Riv Plate Base
◎	233	5-C	41B10386W01	Spring, Eject Arm
□	233	5-C	41B10386W01	Spring, Eject Arm
△	233	5-C	41B63283F11	Spring
◎	234	5-C	01A30883W01	Assy., Riv Eject Arm B
□	234	5-C	01A30883W01	Assy., Riv Eject Arm B
△	234	5-C	01A40021W01	Assy., Riv Eject Arm D
	235	3-B	01B30863W02	Assy., Pinch Roller
	236	4-C	45A10087W01	Lever Pack In SW
	237	4-F	44A20314W01	Pinion, Eject
	238	2-B	26A20537W01	Shield, plate
	239	5-D	01A40881W01	Assy., Riv RF Link
	240	2-D	45A40725W01	Lever, Play Sol.
	241		76T10374W01	Chip
	242	1-G	04S40075G05	Washer, Polyslider(M2.1)
	243	1-G	01A30488W01	Assy., Flywheel
	244	3-F	44A10141W01	Gear, Eject Idler
	245	3-E	01A10205W02	Assy., Riv Lever Clutch A
	246	3-F	44A10145W01	Gear, Eject
	247	2-B	01V33500W45	Assy., GR Control P.C. Board
	248	3-G	43A41656W01	Spacer, UHMW
	249	5-D	44A30481W01	Gear, RF Idler
	250	4-D	44A30483W01	Gear, RF
	251	4-D	04S40075G58	Washer, Polyslider(M2.1)
	252	3-H	01A30463W01	Assy., Riv. Cover Bottom
	254	3-G	15B11065W01	Guide, Photo
	255	4-G	30T15126W01	Wire, PC Sensor(7P)
	258	4-D	45A10101W01	Lever, Eject Sol
	259	3-D	49A30476W01	Pulley, Idler
	260	4-E	44A30482W01	Gear, Take Up
	261	3-E	44A30478W01	Gear, Sun
	262	3-E	44B10135W01	Gear, Fix
	263	3-E	44B30484W01	Gear, Pause
	264	3-F	44A10137W01	Gear, Pause Idler A
	265	3-E	44A30486W01	Gear, Pause Idler B
	266	3-E	44A30479W01	Gear, Reverse Idler
	267	2-E	44A30485W01	Gear, Motor Idler
	268	2-E	44A30487W01	Gear, Motor Clutch
	269	1-G	42A31850W01	Belt, GR
◎	270	3-A	01V43400W38	Assy., GR Audio P.C. Board
□	270	3-A	01V33300W03	Assy., GR Audio P.C. Board
△	270	3-A	01V33300W03	Assy., GR Audio P.C. Board
	272	3-F	04B41345P15	Washer, Lock(M1.2)
	273		04B41345P02	Washer, Lock(M1.7)
	274	3-H	04B41345P17	Washer, Lock(M1)
	275	2-D	04B41345P30	Washer, Lock(M3.1)
	276	3-B	04B41345P32	Washer, Lock(M3.1)
	277	2-E	01A30464W01	Assy., Riv Play Clutch
	278	2-A	30T15126W02	Wire, PC Joint 7P
	279	2-D	03S44205G78	Screw, Pan(M2x6)
	280		03S44205G30	Screw, Pan(M2.6x4)
	281	4-D	03S72235F53	Screw, Pan(M2x3.3)
	282	3-F	03A12132W02	Screw, Eject Clutch(M2x2.3)
	283		03S43997P64	Screw, Pan(M1.7x3)
	284	3-F	41A10384W01	Spring, Eject Clutch
	285	3-E	41A10385W01	Spring, Cas Push
	286	2-C	41B10386W02	Spring, Sub Head
	287	2-B	41A10387W01	Spring, Pinch Roller
	288	3-D	43A12719W01	Roller, Pause
	289	3-B	01B30863W01	Assy., Pinch Roller
◎	290	2-B	84T25151W01	Head P.C. Board

Notes : ◎ ; For GR75H020 model only □ ; For GR75H030 model only
△ ; For GR75H130 model only Others ; Common

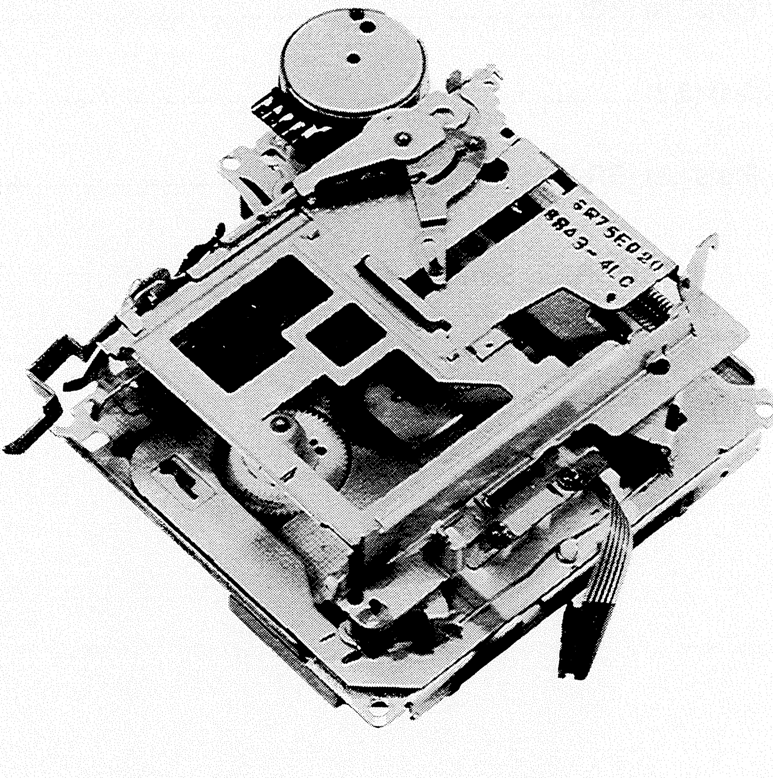
Symbol No.		IN-dex	Part No.	Description
□	290	2-B	84T35271W01	Head P.C. Board
△	290	2-B	84T35271W01	Head P.C. Board
	291	5-E	01T35403W01	Assy., Reel
	292	5-E	04B41345P12	Washer, Lock(M1.7)
	293	2-D	04B41345P35	Washer, Lock(M1.7)
	294	2-E	43A30827W01	Spacer, Motor Idler
	295	2-E	41A30490W01	Spring, Play Clutch
	296	5-D	01A40882W01	Assy., Riv Lever RF
	297	2-D	34A48030W01	Washer, Solenoid
	298	3-E	01A10201W02	Assy, Riv Lever Pause
	299	4-C	43A40388W01	Spacer, Polyslider
□	300	2-B	41A41416W01	Spring, Head
△	300	2-B	41A41416W01	Spring, Head
Miscellaneous				
◎	501	2-B	88T15971W01	Head
□	501	2-B	88T35406W01	Head
△	501	2-B	88T35406W01	Head
	502	5-F	01V41100W72	Assy., Motor(11.5v-85mA)
	503	3-G	51T15144W01	Sensor, Photo
	504	4-G	01T10371W01	R/F Sol. Assy.
	505	4-F	40T15382W01	SW., Detector (Pack Down)
	506	4-G	40T15382W01	SW., Detector(Metal)
	507	2-C	40T15222W01	SW., Detector (Pack In)
	508	2-D	01T15249W01	Assy., Play Solenoid
	509	4-D	01T10369W02	Assy., Eject Solenoid

Notes: ◎ ; For GR75H020 model only □ ; For GR75H030 model only
△ ; For GR75H130 model only Others ; Common

ALPINE SERVICE MANUAL

Cassette Deck Mechanism

ADDENDUM & REVISED (III)


6R75E020
8843-ALC

GR/GR-Y SERIES

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Cassette Deck Assembly Parts List (GR-Y Series) (3/3) .... 27 t o 28

List of Usable Lock Washers

	SIZE	PARTS NO.	QUANTITY		
			GR75E Series	GR75L Series	GR-Y Series
1	(M1.2 x 3.5 x 0.25)	04B41345P01	8	7	6
2	(M1.7 x 3.5 x 0.25)	04B41345P02	1	1	2
3	(M2.1 x 5 x 0.25)	04B41345P06	1	1	0
4	(M1.2 x 2.5 x 0.25)	04B41345P11	7	7	8
5	(M1.7 x 3.5 x 0.35)	04B41345P12	2	2	2
6	(M1.2 x 3.5 x 0.35)	04B41345P15	1	1	1
7	(M1 x 2.5 x 0.25)	04B41345P17	1	1	1
8	(M2.6 x 5 x 0.25)	04B41345P29	1	1	0
9	(M3.1 x 8 x 0.05)	04B41345P30	1	1	1
10	(M1.7 x 3 x 0.25)	04B41345P31	1	1	1
11	(M3.1 x 5 x 0.35)	04B41345P32	2	2	2
12	(M1.2 x 2.5 x 0.3)	04B41345P34	1	1	0
13	(M2.1 x 4 x 0.25)	04B41345P37	0	0	1
14	(M2.6 x 4.7 x 0.25)	04B41345P38	0	0	1

List of Usable Oil

1) Molykote E paste
2) Grease EM-30L
3) Grease FLOIL 425A

List of Usable Jigs

1) GR bottom gear jig (Part No. 44A20788W01)
2) Head height adjustment gauge
   AI-500 (Part No. AI-500)

Memo

Disassembly, Assembly and Replacement of Functional Parts

1. Disassembly and Assembly of Bottom Cover

(1) Turn the mechanism around as shown in Figure 1.
(2) Remove M1 lock washer ① as shown in Figure 1.
(3) Remove three screws ② as shown in Figure 1.
(4) Lift the bottom cover slowly from the position Ⓐ-1, pull the hooks out of the holes in the chassis, and remove the bottom cover as shown in Figure 1.
(5) When remounting the bottom cover, first turn the front of the mechanism up as shown in Figure 2.
(6) Slide the slider in the direction Ⓐ-2 as shown in Figure 2.
(7) Push down the cassette holder in the direction Ⓐ-3 as shown in Figure 2.
(8) Pull the door pin in the direction Ⓐ-4 so that the mechanism is locked in as shown in Figure 2.
(9) Turn the mechanism around as shown in Figure 3.
(10) Pull the automatic metal lever in the direction Ⓐ-5 and the RF solenoid chip in the direction Ⓐ-6 as shown in Figure 3.
(11) Insert the hooks of the bottom cover into the chassis in the direction Ⓐ-7, and then join the part Ⓐ-8 of the bottom cover to the chassis slowly, making sure that the 3 points indicated with the straight lines in the Figure 3 are fitted properly.
If there are troubles in mounting the bottom cover, do not apply force but remove the bottom cover once again and check the positions of the individual parts. (Refer to Figure 3.)
(12) Since the hooks marked Ⓐ-8 will be lifted slightly as shown in Figure 4, insert the jig through the hole Ⓐ-9, and fix it turning the jig slightly in the direction Ⓐ-11.
Instead of operation (12), turn the gear nose slowly with a precision screwdriver etc., taking care not to damage it.
After 2 to 3 turns, it will click into place.
(Refer to Figures 4 and 5.)
(13) Fix the screws and the lock washer that have been removed.

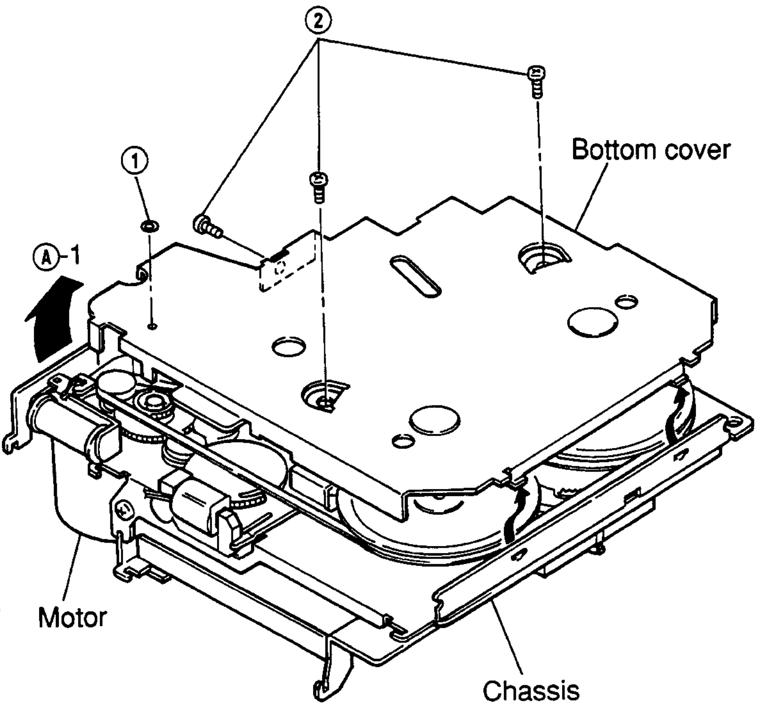


Figure 1

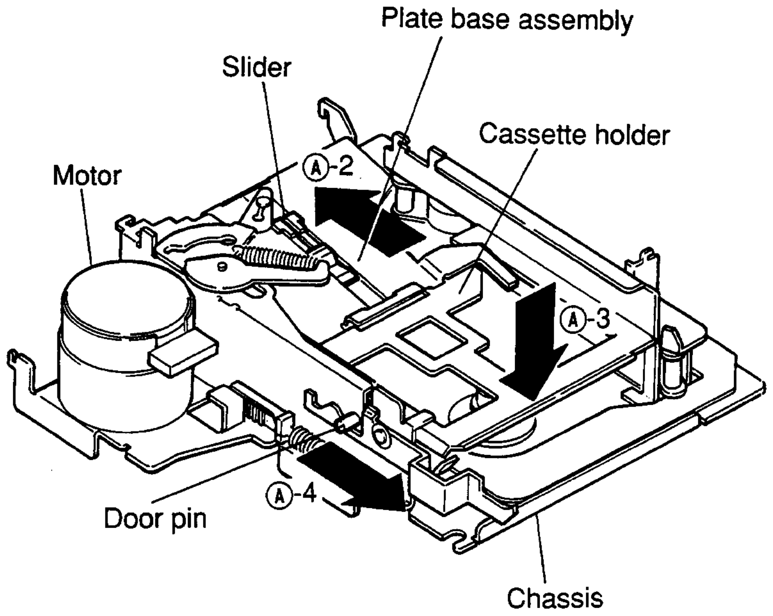


Figure 2

(14) Insert the jig into the hole Ⓐ-9 as shown in Figure and rotate the eject solenoid counterclockwise about 20 times, pulling it in the direction Ⓐ-10 with the finger.
Then the eject operation is completed.
Instead of operation (14), the eject operation can be performed by mounting the mechanism to the product. (Refer to Figures 4 and 5.)

Note: Do not reuse the used lock washers for mounting.
When turning the mechanism, be careful not to drop the gear and the flywheel.
Fasten the three screws with a fastening torque of 6 kg.cm.

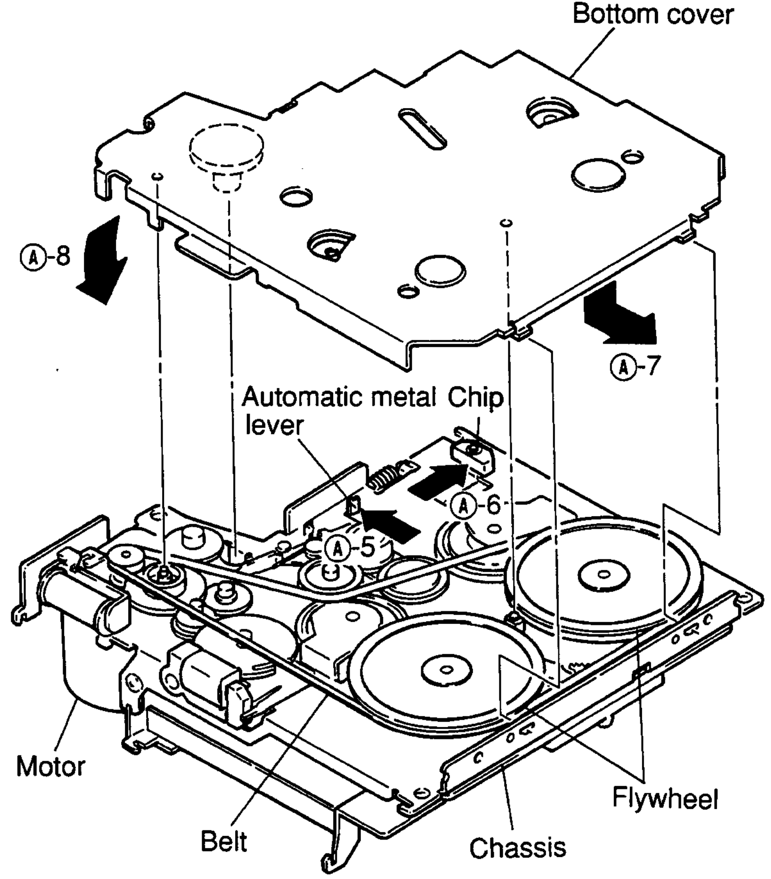


Figure 3

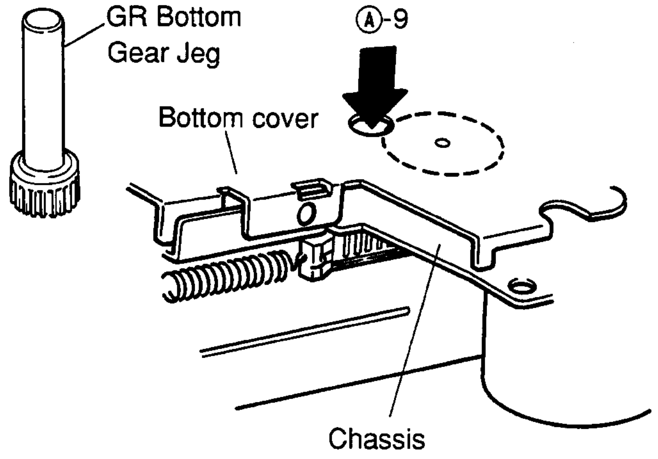


Figure 4

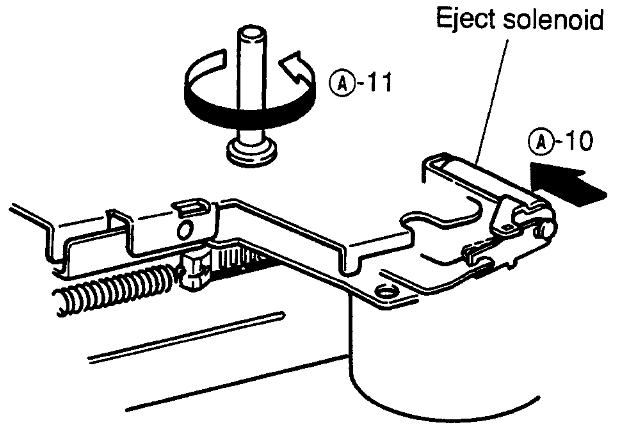


Figure 5

2. Replacement of the bottom cover mounting parts

a. Replacement of the eject gear

(1) Remove M1.2 lock washer ③ as shown in Figure 6.
(2) Pull the eject pinion out of the eject gear and remove the eject gear as shown in Figure 6.
(3) Apply the molykote E paste to the section Ⓑ-1, and mount the eject gear following the removal steps in the reverse order. After replacement is finished, make sure that the gear rotates smoothly. (Refer to Figure 6.)

Note: Do not reuse the used lock washers for remounting.
Take care to avoid damage by piercing and tearing.

b. Replacement of the RF solenoid

(1) Remove two solders ④ and remove the RF solenoid from the bottom cover by pulling it up as shown in Figure 6.
(2) Replace the solenoid with a new one, and remount it following the removal steps in the reverse order as shown in Figure 6.

Note: When removing solder ④, set the temperature of the soldering iron to 350° ± 10° and the soldering time to 1 – 3 seconds. Take care that the solder is not loose, that there is no shortcircuit and that the coating is not damaged.

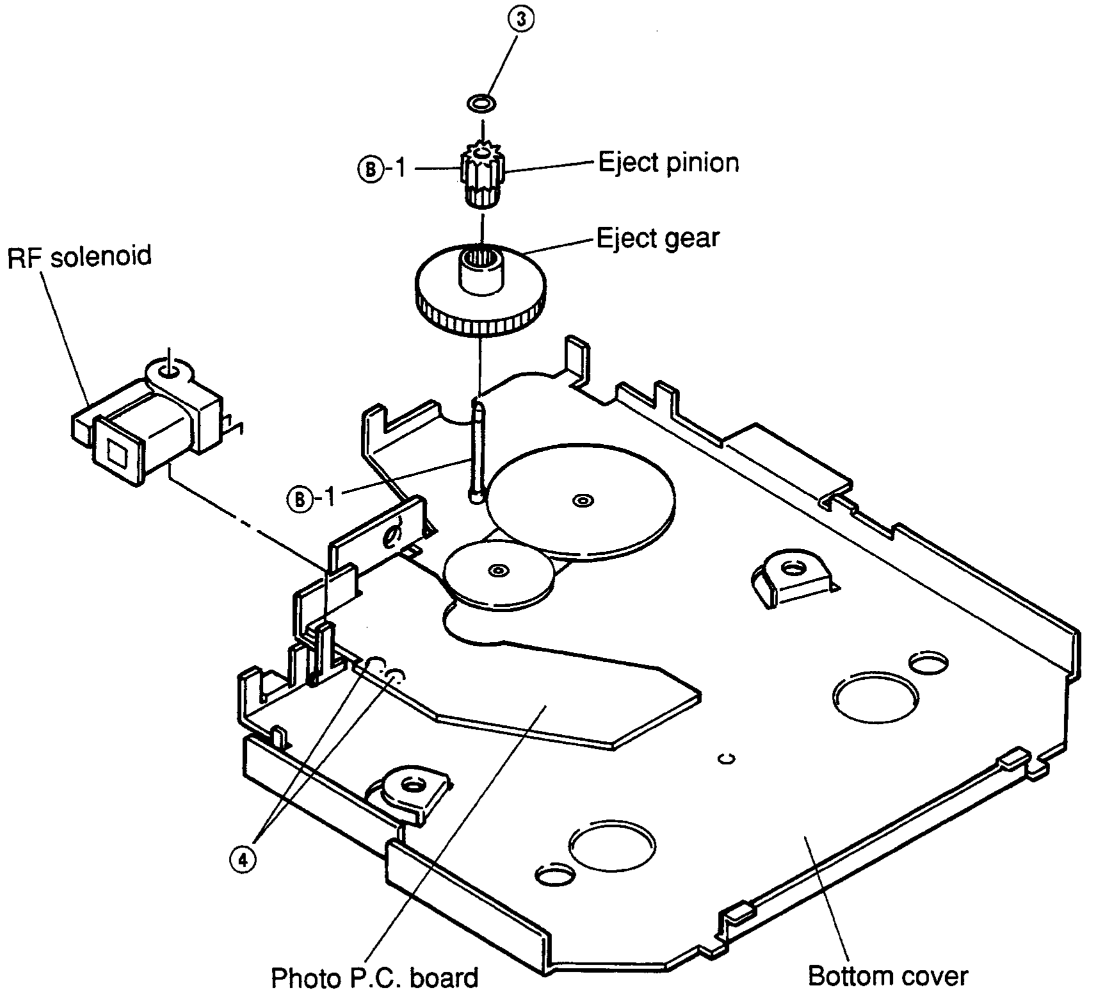


Figure 6

c. Replacement of the photo sensor

(1) Remove four solders ⑤ as shown in Figure 7.
(2) Remove the photo guide together with the photo sensor from the photo P.C. board as shown in Figure 7.
(3) Insert the new photo sensor into the photo guide, and bend the legs of the photo sensor in the direction marked Ⓑ-2 as shown in Figure 7.
(4) Insert the photo guide into the P.C. board and solder the legs so that the photo sensor is set as indicated by ⬚ in Figure 7.

Note: When using the soldering iron, set the temperature of the soldering iron to 350° ± 10° and the soldering time to 1 – 3 seconds. Take care that the solder is not loose, that there is no shortcircuit and that the coating is not damaged. Also take care that the photo guide is properly fixed and straight.

d. Replacement of the detector switch (Automatic metal pack-in)

(1) Remove 4 solders ⑥ with which the switch is fixed as shown in Figure 7.
(2) Prepare the terminals of the switch of the new solder as shown in Figure 8.
(3) After that, insert the switch into the photo P.C. board, and solder the terminals.

Note: When using the soldering iron, refer to Item 2-C to make sure that the temperature of the soldering iron and the soldering time are proper. Also take care that the switch guide is properly fixed and straight.

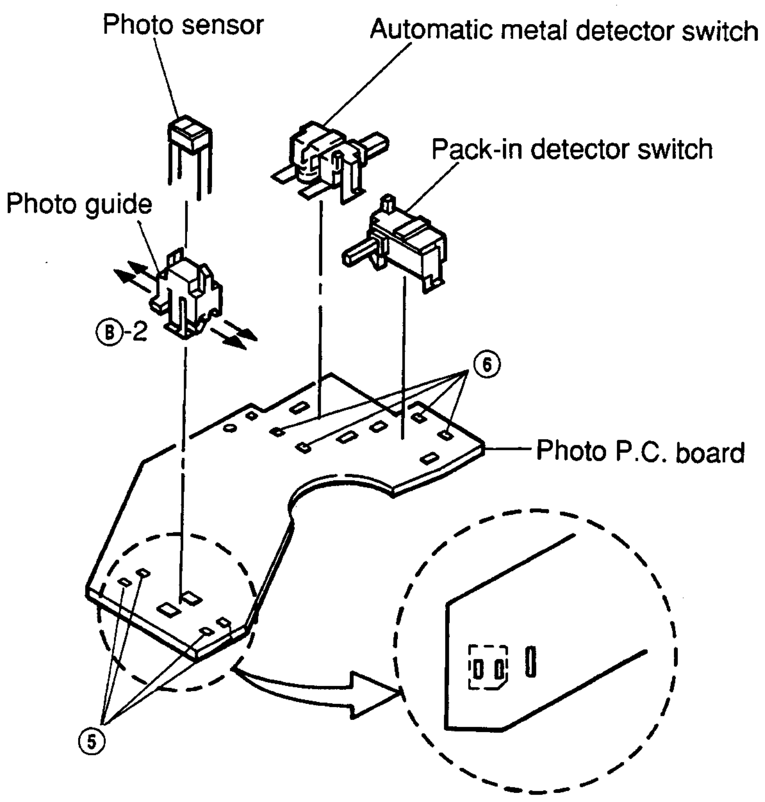


Figure 7

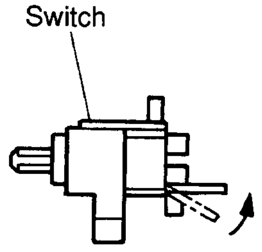


Figure 8

3. Replacement of the mounting parts on the rear of the main chassis

a. Replacement of the belt

(1) After removing the bottom cover, remove the belt.

(2) Clean the new belt with absolute alcohol, and fix it as shown in Figure 9.

Note: When fixing the belt, make sure that it is not twisted or dirty. When removing the belt, do not turn up the front of the chassis.

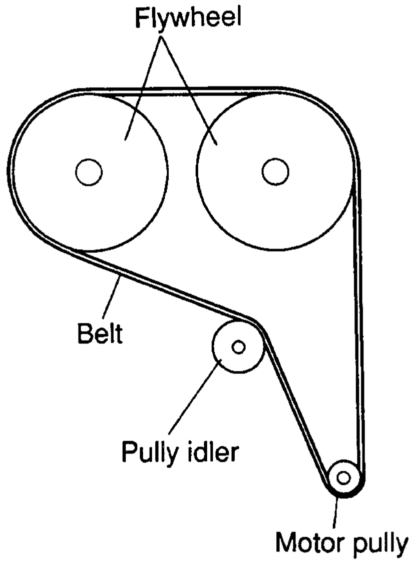

Flywheel
Belt
Pully idler
Motor pully

Figure 9

b. Replacement of the motor

(1) After removing the belt, remove spring ⑦ as shown in Figure 10.

(2) Remove solder ⑧-1, and remove the parallel wire (5P) from the control P.C. board as shown in Figure 11.

(3) Remove two screws ⑨ and ⑩, and remove the motor, taking care not to damage the motor idler gear. (Refer to Figure 10.)

(4) Mount the new motor following the removal steps in the reverse order.

Note: Refer to Item 2-C to make sure that the temperature of the soldering iron and the soldering time are proper. Since the parallel wire is very easily damaged, handle it with care.
Fasten the two screws with a fastening torque of 3 kg.cm.

*When inserting the clutch spring, be careful of the inserting direction as shown in the Figure.

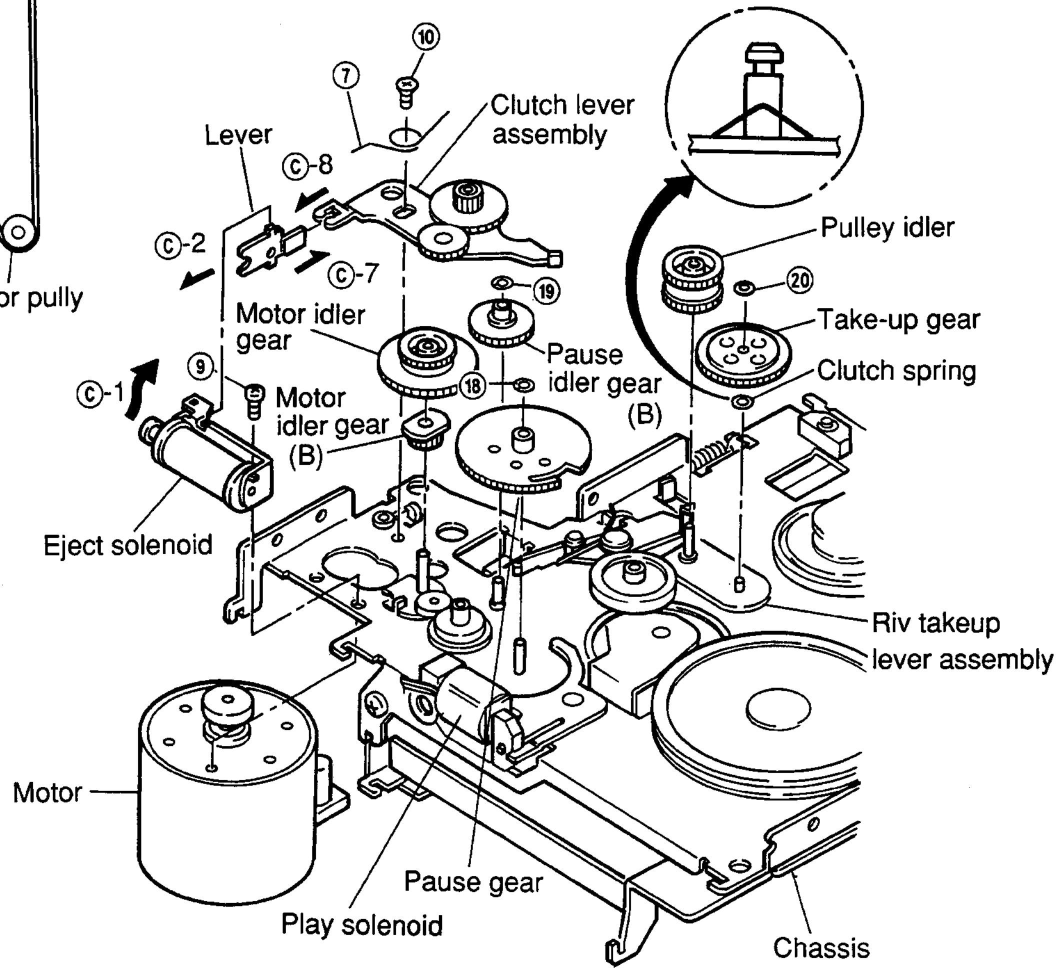

⑩
⑦
Clutch lever assembly
Lever
Ⓒ-8
Ⓒ-2
Ⓒ-7
Pulley idler
⑳
Take-up gear
Clutch spring
⑲
Motor idler gear
Pause idler gear (B)
⑱
⑨
Ⓒ-1
Motor idler gear (B)
Eject solenoid
Riv takeup lever assembly
Motor
Pause gear
Play solenoid
Chassis

Figure 10

c. Replacement of the flywheels

(1) After removing the belt, pull out the two flywheels. Take care not to loose the polyslider washer ⑪ located between the flywheel and the chassis. (Refer to Figure 12.)

(2) Fix the polyslider washer to the new flywheel and mount the flywheel to the chassis.

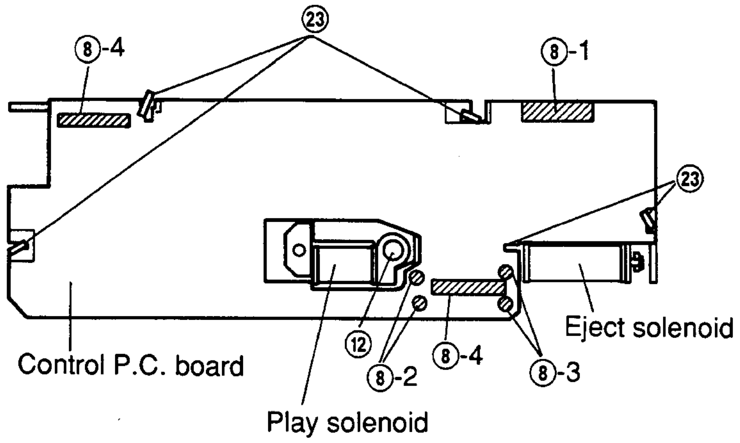
d. Replacement of the play solenoid

(1) Remove the two solders ⑧-2 as shown in Figure 11.

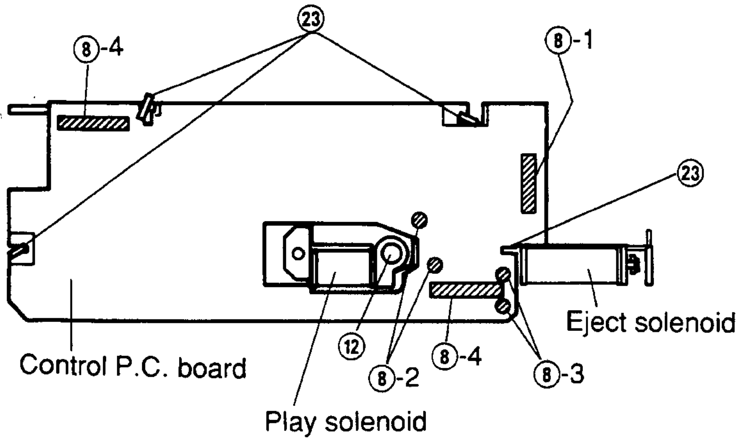
(2) Remove one screw ⑫ and remove the solenoid as shown in Figure 11.

(3) Mount the new solenoid following the removal steps in the reverse order.

Note: Refer to Item 2-C to make sure that the temperature of the soldering iron and the soldering time are proper. Fasten the screws with a fastening torque of 2.3 kg.cm.


㉓
⑧-4
⑧-1
㉓
Control P.C. board
⑫
⑧-2
⑧-4
⑧-3
Eject solenoid
Play solenoid

[For GR75E020, GR75E010, GR75E01A, GR75E01C models]


㉓
⑧-4
⑧-1
㉓
Control P.C. board
⑫
⑧-2
⑧-4
⑧-3
Eject solenoid
Play solenoid

[For GR75L020, GR75L010 models]

Figure 11

e. Replacement of the eject solenoid

(1) Remove two solders ⑧-3. Take care not to loose the tube that protects the wire. (Refer to Figure 11.)

(2) Remove screw ⑨ and remove the play solenoid as shown in Figure 10.

(3) Align position Ⓒ-1 of the new solenoid with position Ⓒ-2 of the lever and fasten the screw as shown in Figure 10.

(4) Lead the wire through the tube and solder it.

Note: Refer to Item 2-C to make sure that the temperature of the soldering iron and the soldering time are proper. Fasten the screws with a fastening torque of 3 kg.cm. As the solder wires are not insulated, do not let them cross each other.

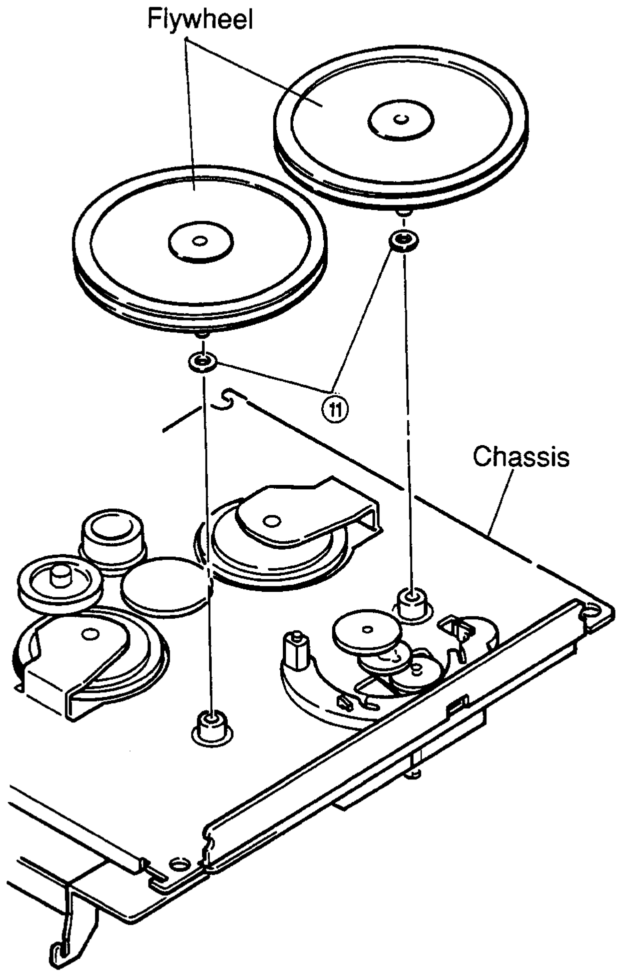

Flywheel
⑪
Chassis

Figure 12

f. Replacement of gears

(f-1) Replacement of the reverse idler gear

1. (1) Remove M1.2 lock washer ⑬, pull it up from the stud of the chassis and remove the gear as shown in Figure 13.
2. (2) Remount following the removal steps in the reverse order.

(f-2) Replacement of the sun gear

1. (1) Remove M1.2 lock washer ⑭, pull it up from the stud of the chassis and remove the gear as shown in Figure 13.
2. (2) Mount it, following the removal steps in the reverse order.

(f-3) Replacement of the fixing gear

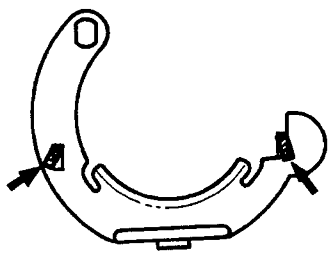
1. (1) Adjust the two mounting claws for the fix gear on the chassis ⑮ and remove the section Ⓒ-3 of the gear by pulling it up in the direction of the arrow shown in Figure 13.
2. (2) Insert the section Ⓒ-4 of the new gear into the chassis, and mount it following the removal steps in the reverse order as shown in Figure 13.

(f-4) Replacement of the reverse lever assembly and planet gear

1. (1) Remove both the fixing gear and the sun gear and remove the reverse lever assembly as shown in Figure 13.
2. (2) Remove M1.7 lock washer ⑯ and remove the planet gear as shown in Figure 14.
3. (3) Mount the new planet gear and reverse lever following the removal steps in the reverse order.

Notes on f-1 through f-4:
After mounting all parts, check if the reverse lever moves in the directions marked Ⓒ-5 when the reverse gear is turned clockwise and counterclockwise.

*After mounting the fixing gear, bend the claws ⑮ into the form of as shown in the Figure.



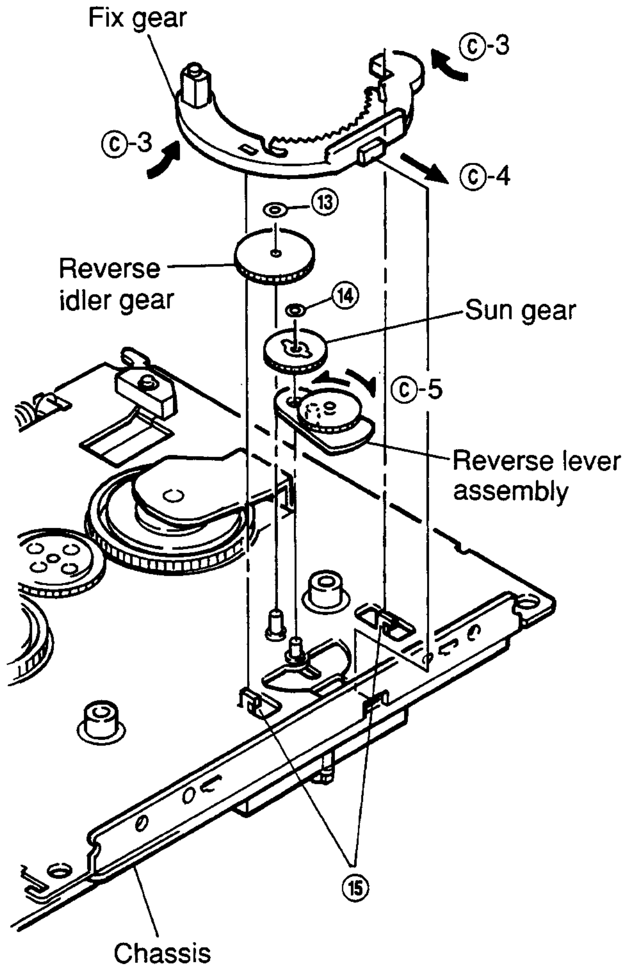


Figure 13

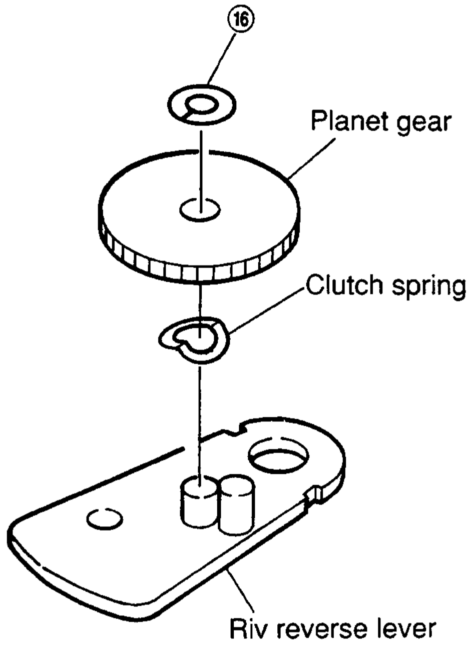
(f-5) Replacement of the clutch lever assembly and eject idler gear

1. (1) After removing the motor, remove the motor idler gear and the motor idler gear (B) and remove the clutch lever assembly as shown in Figure 10.
2. (2) Remove M1.2 lock washer ⑰ and remove the eject idler gear as shown in Figure 15.
3. (3) Mount the new gears and clutch lever following the removal steps in the reverse order.

Note: When mounting the gears to the lever, apply grease (FLOIL 425A) to the position Ⓒ-6 as shown in Figure 15. Align the position Ⓒ-7 with the position Ⓒ-8 and mount the clutch lever as shown in Figures 10 and 15.

(f-6) Replacement of the pause gear

1. (1) Remove M1.2 lock washer ⑱ and remove the pause gear pulling it up from the stud of the chassis as shown in Figure 10.
2. (2) Mount the new gear following the removal steps in the reverse order.



[Disassembly Reverse Lever Assembly]

Figure 14

(f-7) Replacement of the pause idler gear (B)

1. (1) After removing the motor and the motor idler gear, remove M1.2 lock washer ⑲ and remove the gear by pulling it up from the stud of the chassis as shown in Figure 10.
2. (2) Mount the new gear by following the removal steps in the reverse order.

(f-8) Replacement of the take-up gear

1. (1) After removing the belt and the pulley idler gear, remove M1.2 lock washer ⑳ by pulling it up from the stud of the riv take-up lever assembly as shown in Figure 10.
2. (2) Remount the take-up gear following the removal steps in the reverse order.

Notes on f:
Do not reuse the used washers. Take care to avoid damage by piercing and tearing.

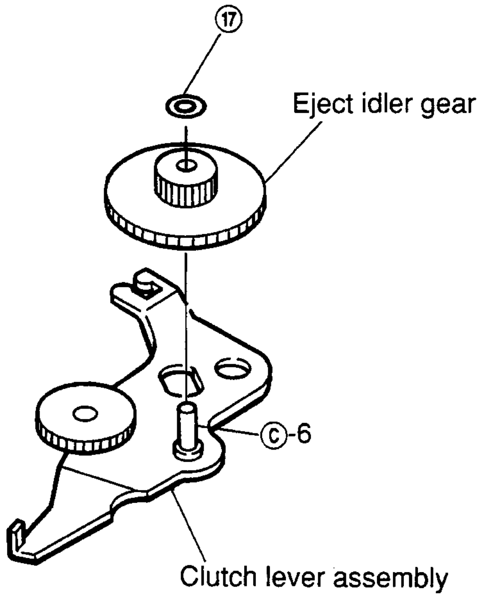


Figure 15

4. Replacement of the parts mounted on the front of the chassis

a. Replacement of the audio P.C. board

(1) Remove two solders ㉑ and remove the parallel wire (7P) and the head P.C. board as shown in Figure 16.

(2) Adjust the two claws ㉒ to the rectangular holes on the P.C. board and remove the P.C. board as shown in Figure 16.

(3) After replacement, mount the new P.C. board following the removal steps in the reverse order.

Note: The head P.C. board and the parallel wire are easily damaged. Handle them with care. Refer to Item 2-C to make sure that the temperature of the soldering iron and the soldering time are proper. Do not bring the soldering iron near the head P.C. board.

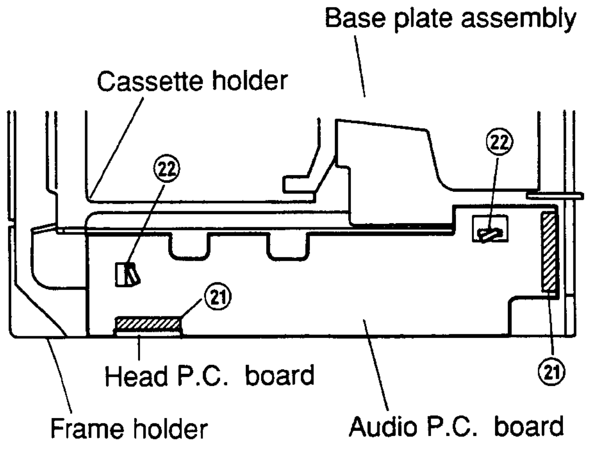


Figure 16

b. Replacement of the control P.C. board

(1) Remove seven solders ⑧ and remove the three parallel wires and the wires of the eject solenoid and of the play solenoid as shown in Figure 11.

(2) Remove five claws ㉓ and remove the P.C. board as shown in Figure 11. [For GR75E020, GR75E010, GR75E01A, GR75E01C models]
Remove four claws ㉓ and remove the P.C. board as shown in Figure 11.
[For GR75L020, GR75L010 models]

(3) After replacing the old P.C. board with a new one, mount it following the removal steps in the reverse order.

Note: As mentioned in Item 4-a, handle the parallel wires carefully, and be sure that the temperature of the soldering iron and the soldering time are proper. As the wires of the eject solenoid are not insulated, do not let them cross each other.

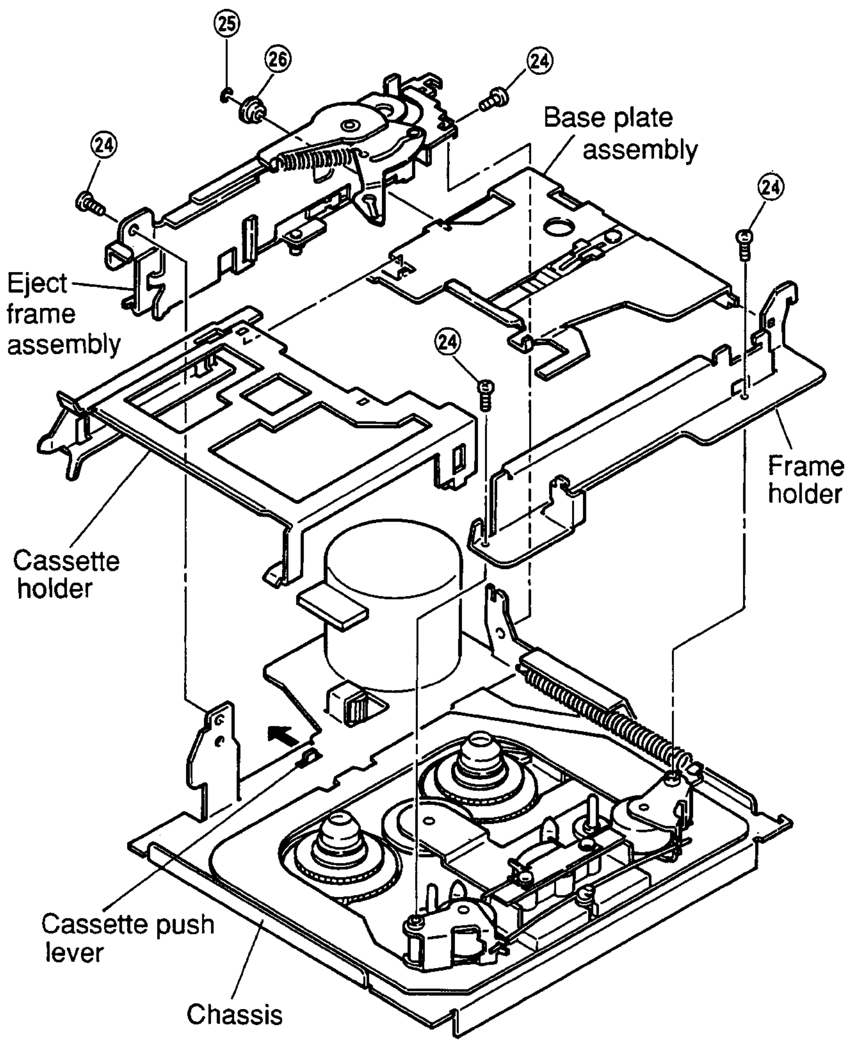


Figure 17

c. Disassembly and assembly of the cassette holder

(1) Remove four screws ㉔ and remove the eject frame assembly and the frame holder as shown in Figure 17.

(2) Remove M1.2 lock washer ㉕ and plate base roller ㉖ and remove the cassette holder and the base plate assembly as shown in Figure 17.

(3) Remount them following the removal steps in the reverse order.

Notes: 1. When mounting the cassette holder and the base plate, insert the slider shaft into the eject arm and fix them turning the slider shaft in the direction indicated by the arrow in the figure. Make sure that the cassette holder and the base plate are in the cassette-in mode during this operation. (Refer to Figure 18).

2. When mounting the eject frame assembly, push the cassette push lever in the direction indicated by the arrow in the Figure 17.

3. When mounting the base plate assembly and the eject frame assembly, or when mounting the eject frame assembly to the chassis, do not apply excessive force to avoid deformations of the eject arm and the frame.

4. Do not reuse the used washers. Take care to avoid damage by piercing and tearing.

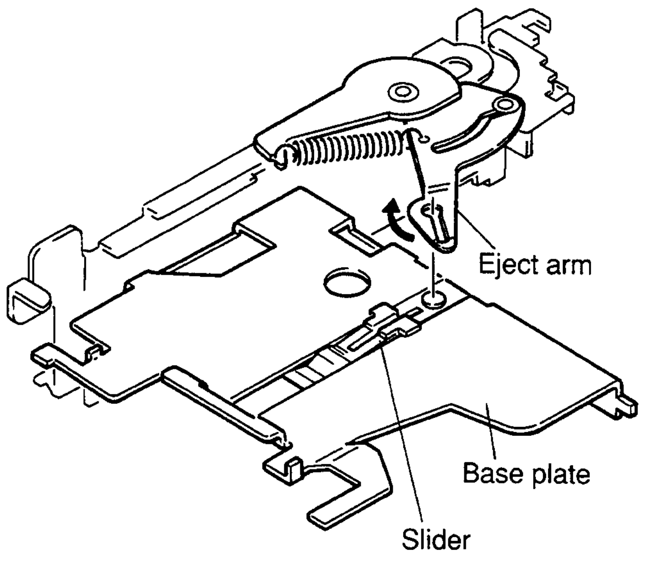


Figure 18

d. Replacement of the reels

(1) Remove M1.7 two lock washers ㉖ (Refer to figure 19).

(2) Move the select lever in the direction marked Ⓓ-1 in the Figure and remove the reel by gripping the reel gear as shown in Figure 19.

(3) After replacement, mount the new reels following the removal steps in the reverse order.

(4) After mounting, check the tape speed and the wow and flutter with test tape MTT-111.

Note: Since the reel is easily loosened if the cap is gripped, always handle it gripping the gear. Do not reuse the used washers. Take care to avoid damage by piercing and tearing.

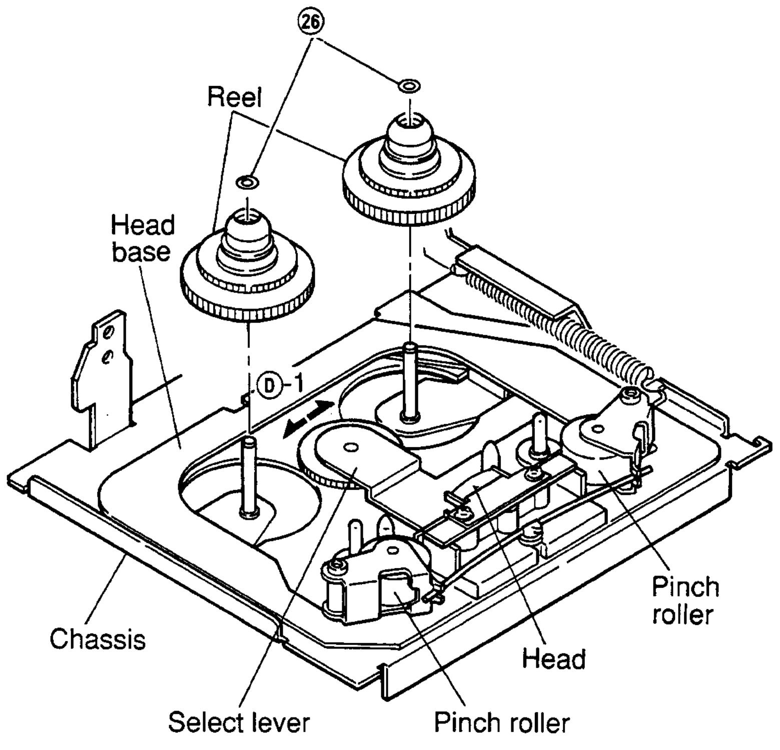


Figure 19

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e. Replacement of the pinch rollers

(1) Remove pinch roller spring ㉗ as shown in Figure 20.

(2) Remove M3.1 two lock washers ㉘ and remove the pinch roller as shown in Figure 20.

(3) Mount the pinch rollers following the removal steps in the reverse order.
Apply insulation coating to the position Ⓓ-2 of the pinch roller as shown in Figure 20.

Note: Make sure that the pinch rollers are thoroughly fixed and that they are not deformed. Do not reuse used lock washers. Take care to avoid damage by piercing and tearing.

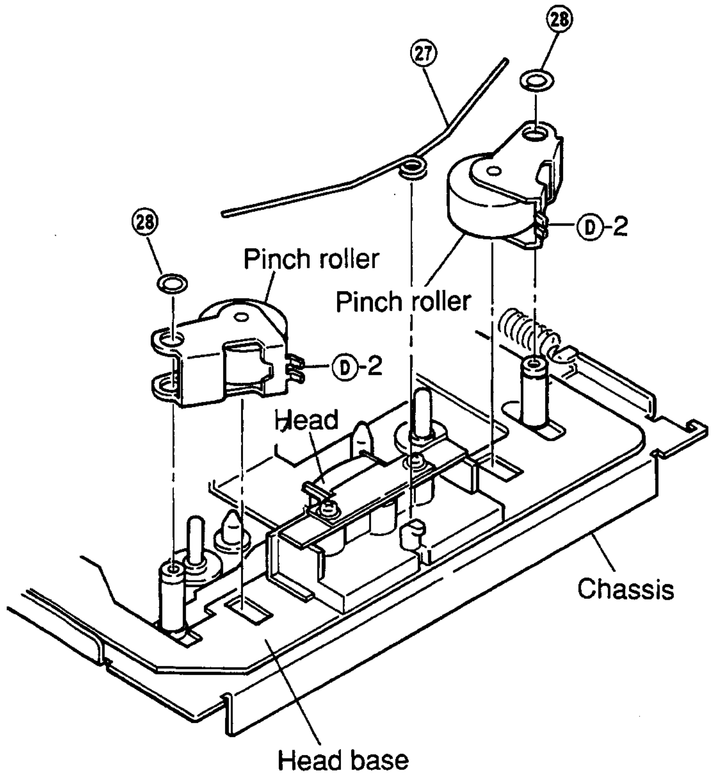

㉘
㉗
㉘
Ⓓ-2
Pinch roller
Pinch roller
Ⓓ-2
Head
Chassis
Head base

Figure 20

f. Replacement of the head

(1) After removing the pinch roller spring, remove two screws ㉙ as shown in Figure 21.

(2) Remove solder ㉚ and remove the head from the head P.C. board as shown in Figure 22.

(3) After replacement, mount the new head following the removal steps in the reverse order.

Notes: 1. Refer to Item 2-C to make sure that the temperature of the soldering iron and the soldering time are proper. Do not bring the soldering iron near the head P.C. board. Make sure that the head P.C. board is not lifted.

2. Fasten the two screws with a fastening torque of 2.3 kg.cm. Note that the tension of the head spring can be decreased if the screws are fastened too strongly.

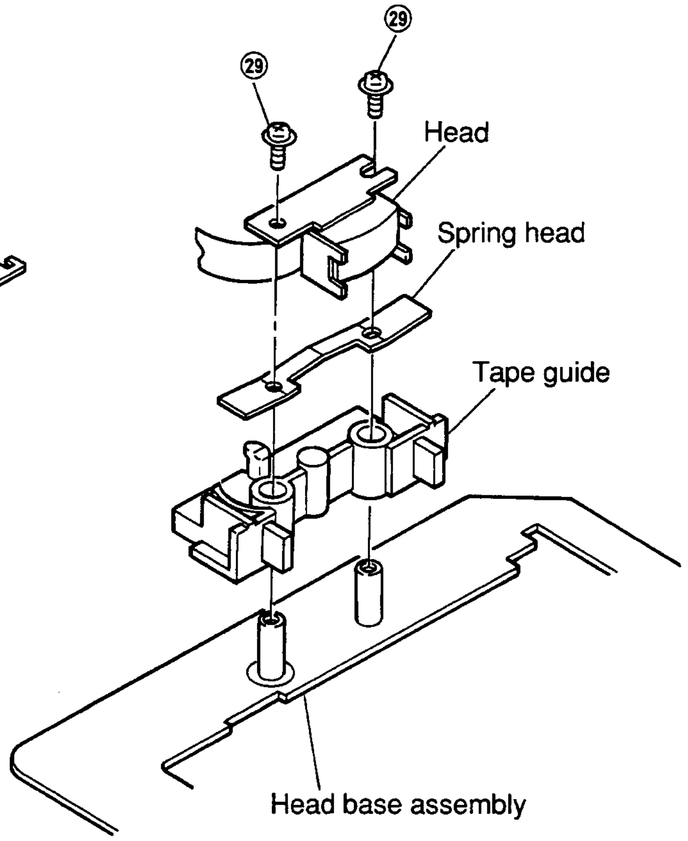

㉙
㉙
Head
Spring head
Tape guide
Head base assembly

Figure 21

(4) Adjust the height of the head as shown in Figures 23, 24 and 25.

① Place the height adjustment gauge (AI-500) on the head base, and adjust the height so that the check bar fits in the tape head guide smoothly.

② When the check bar touches the top (or bottom) of the tape guide, insert a spacer (t 0.1 mm or polislider washer t 0.13 mm).
If necessary, remove the spacer.

Note: If you do not have a height gauge like described in (4)-①, run the tape at normal speed and adjust the height of the head and the tape head guide so that the tape does not curl.

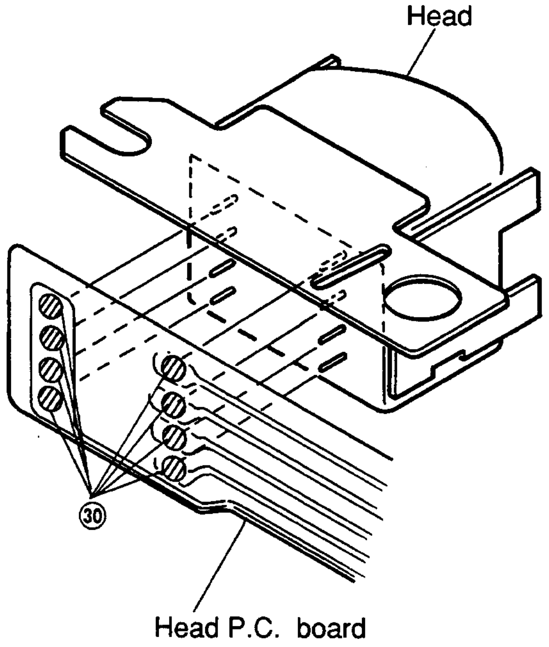

Head
㉚
Head P.C. board

Figure 22

(5) After having assembled the complete mechanism, adjust the angle of the head with test tape MTT-113C. (Refer to chapter "Adjustment of the head angle".) After the adjustment, apply the screw lock and fix the screws.

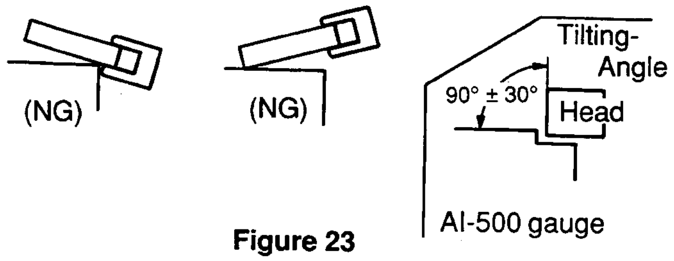

(NG)
(NG)
Tilting-Angle
90° ± 30°
Head
AI-500 gauge

Figure 23

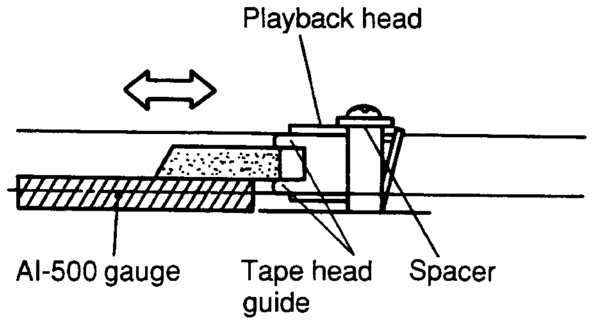
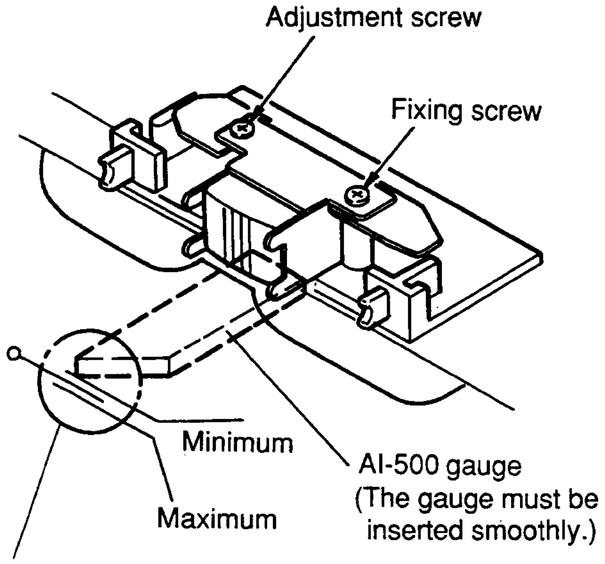

Playback head
AI-500 gauge
Tape head guide
Spacer

Figure 24

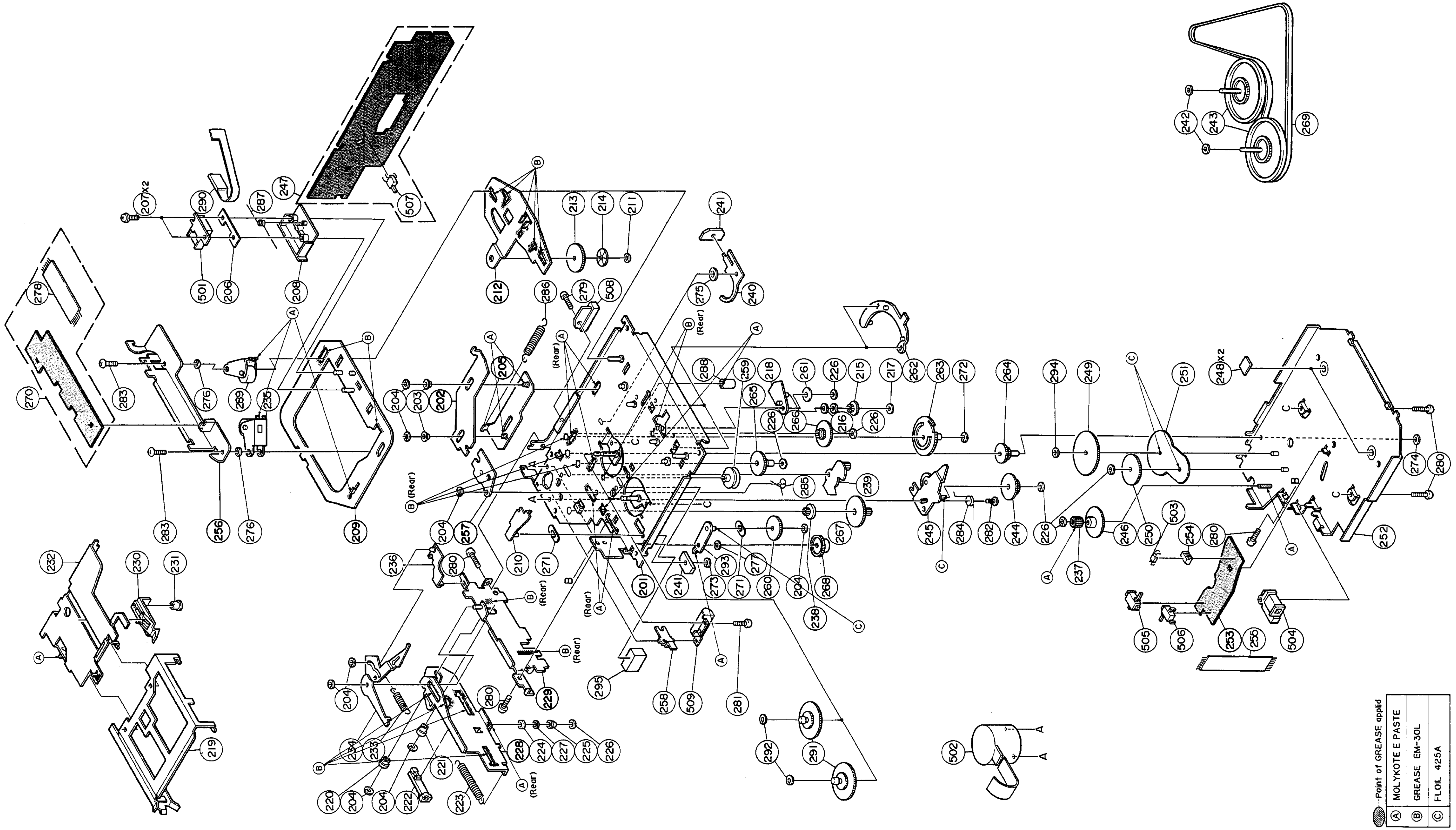

Adjustment screw
Fixing screw
Minimum
Maximum
AI-500 gauge
(The gauge must be inserted smoothly.)

The nosepiece of the gauge must be between the minimum and maximum positions.

Figure 25

Exploded View (1/3)

- **For GR75E010/01A/01C/020 Models**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Ⓐ MOLYKOTE E PASTE
Ⓑ GREASE EM-30L
Ⓒ FLOIL 425A

Supl

Cassette Deck Assembly Parts List (1/3)

Note : The parts without parts list are not supplied.

Symbol No.		IN-dex	Part No.	Description
	203	3-C	43A11072W01	Roller, Sub Head
	204		04B41345P01	Washer, Lock(M1.2)
	206	2-B	41A10095W01	Spring, Head
	207	2-B	03S40019G03	Screw, F-Locks(M2x4)
	208	2-B	43B12545W01	Tape, Guide
	210	4-C	01A10206W01	Assy.,Riv Lever R/F Sol
	211	2-D	04B41345P29	Washer, Lock(M2.6)
	213	2-D	44A10295W01	Gear, Sensor
	214	2-D	14A10681W01	Reflector
	215	3-E	44A10142W01	Gear, Planet
	216	3-E	41A10097W02	Spring, Clutch
	217	3-E	04B41345P35	Washer, Lock(M1.7)
	218	3-E	01A21853W01	Assy., Riv Lever Reverse
	219	4-B	07B10074W01	Holder, Cassette
	220	5-B	43A12583W01	Roller, Eject
	221	5-C	43A63281F01	Roller, Plate Base
	222	5-C	44A82206F01	Rack
	223	5-C	41B10386W03	Spring, GR(Rack)
	224	4-C	43A10121W01	Roller, Eject A
	225	4-D	43A10360W01	Roller, Eject B
	226		04B41345P11	Washer, Lock(M1.2)
	227	4-D	43A12377W01	Roller, Eject C
	230	4-A	45B10376W01	Slider
	231	4-B	47A63278F01	Shaft, Slider
	232	4-A	01A10212W01	Assy.,Riv Plate Base
	233	4-C	41B10386W01	Spring, Eject Arm
	234	4-B	01A10148W01	Assy., Riv Eject Arm A
	235	3-B	01B10381W02	Assy., Pinch Roller
	236	4-C	45A10087W01	Lever Pack In SW
	237	4-F	44A12975W01	Pinion, Eject
	238	4-E	44A13617W01	Gear, Motor Idler(B)
	239	3-E	01A10201W02	Assy., Riv Lever Pause
	240	2-D	45A10092W01	Lever, Play
	241		76T10374W01	Chip
	242	1-G	04S40075G05	Washer Polyslider (M2.1)
	243	1-G	01A10368W01	Assy., Flywheel
	244	3-F	44A10141W01	Gear, Eject Idler
	245	3-E	01A10205W01	Assy., Riv Lever Clutch A
	246	3-F	44A10145W01	Gear, Eject
	247	2-B	01V11500W18	Assy., GR Control P.C. Board
	248	3-G	43A90918F01	Spacer, Polyslider
	249	3-F	44A11063W01	Gear, Bottom A
	250	3-F	44A11064W01	Gear, Bottom B
	251	3-G	34A11122W02	Washer, GR
	252	3-H	01A10210W02	Assy., Riv. Cover Bottom
	254	3-G	15B11065W01	Guide, Photo
	255	4-G	30T15126W01	Wire, PC Sensor(7P)
	258	4-D	45A10101W01	Lever, Eject Sol
	259	3-D	49A10131W01	Pulley, Idler
	260	4-E	44A10133W01	Gear, Take Up
	261	3-E	44A10134W01	Gear, Sun
	262	3-E	44B10135W01	Gear, Fix
	263	3-E	44B10136W01	Gear, Pause
	264	3-F	44A10137W01	Gear, Pause Idler A
	265	3-D	44A10379W01	Gear, Pause Idler B
	266	3-E	44A10138W01	Gear, Reverse Idler
	267	3-E	44A10139W01	Gear, Motor Idler
	268	4-E	44A11062W01	Gear, Reel Idler
	269	1-G	42A10380W01	Belt, GR
●	270	3-A	01V14700W68	Assy., GR Audio P.C. Board
■	270	3-A	01V11500W19	Assy., GR Audio P.C. Board
▲	270	3-A	01V11500W19	Assy., GR Audio P.C. Board
○	270	3-A	01V11500W19	Assy., GR Audio P.C. Board
	271	4-D	41A10097W02	Spring, Clutch
	272	3-F	04B41345P15	Washer, Lock(M1.2)
	273	4-D	04B41345P02	Washer, Lock(M1.7)
	274	3-H	04B41345P17	Washer, Lock(M1)
	275	2-D	04B41345P30	Washer, Lock(M3.1)
	276	3-B	04B41345P32	Washer, Lock(M3.1)
	277	4-E	04B41345P06	Washer, Lock(M2.1)
	278	2-A	30T15126W02	Wire, PC Joint 7P
	279	2-D	03S44205G78	Screw, Pan(M2x6)
	280		03S44205G30	Screw, Pan(M2.6x4)
	281	4-D	03S72235F38	Screw, Pan(M2x3.3)
	282	3-F	03A12132W02	Screw, Eject Clutch (M2x2.3)
	283		03S43997P64	Screw, Pan(M1.7x3)
	284	3-F	41A10384W01	Spring, Eject Clutch
	285	3-E	41A10385W01	Spring, Cas Push
	286	2-C	41B10386W02	Spring, Sub Head
	287	2-B	41A10387W01	Spring, Pinch Roller
	288	3-D	43A12719W01	Roller, Pause

Notes : ● ; For GR75E020 model only ■ ; For GR75E010 model only
▲ ; For GR75E01A model only ○ ; For GR75E01C model only

Others ; Common

Symbol No.		IN-dex	Part No.	Description
	289	3-B	01B10381W01	Assy., Pinch Roller
	290	2-B	84T10367W01	Head P.C. Board
●	291	4-E	01T15164W01	Assy., Reel
■	291	4-E	01T15164W01	Assy., Reel
▲	291	4-E	01T15164W02	Assy., Reel
○	291	4-E	01T15164W01	Assy., Reel
	292	4-E	04B41345P12	Washer, Lock(M1.7)
●	293	4-D	01A11078W01	Assy., Riv Lever Take Up
■	293	4-D	01A11078W01	Assy., Riv Lever Take Up
▲	293	4-D	01A11078W01	Assy., Riv Lever Take Up
○	293	4-D	01A30161W01	Assy., Riv Lever Take Up
	294	3-F	04B41345P34	Washer, Lock(M1.2)
	295	4-D	75S12196W88	Rubber, Pad
	Miscellaneous			
●	501	2-B	88T15971W01	Head
■	501	2-B	88T10373W01	Head
▲	501	2-B	88T10373W01	Head
○	501	2-B	88T10373W01	Head
	502	4-E	01V11500W64	Assy., Motor
	503	3-G	51T15144W01	Sensor, Photo
	504	4-G	01T10371W01	R/F Sol. Assy.
	505	4-F	40T15382W01	SW., Detector (Pack Down)
	506	4-G	40T15382W01	SW., Detector(Metal)
	507	2-C	40T15222W01	SW., Detector (Pack In)
	508	2-D	01T15249W01	Assy., Play Solenoid
	509	4-D	01T10369W02	Assy., Eject Solenoid

Notes : ● ; For GR75E020 model only ■ ; For GR75E010 model only
▲ ; For GR75E01A model only ○ ; For GR75E01C model only

Others ; Common

Exploded View (2/3)

- **For GR75L010/020 Models**

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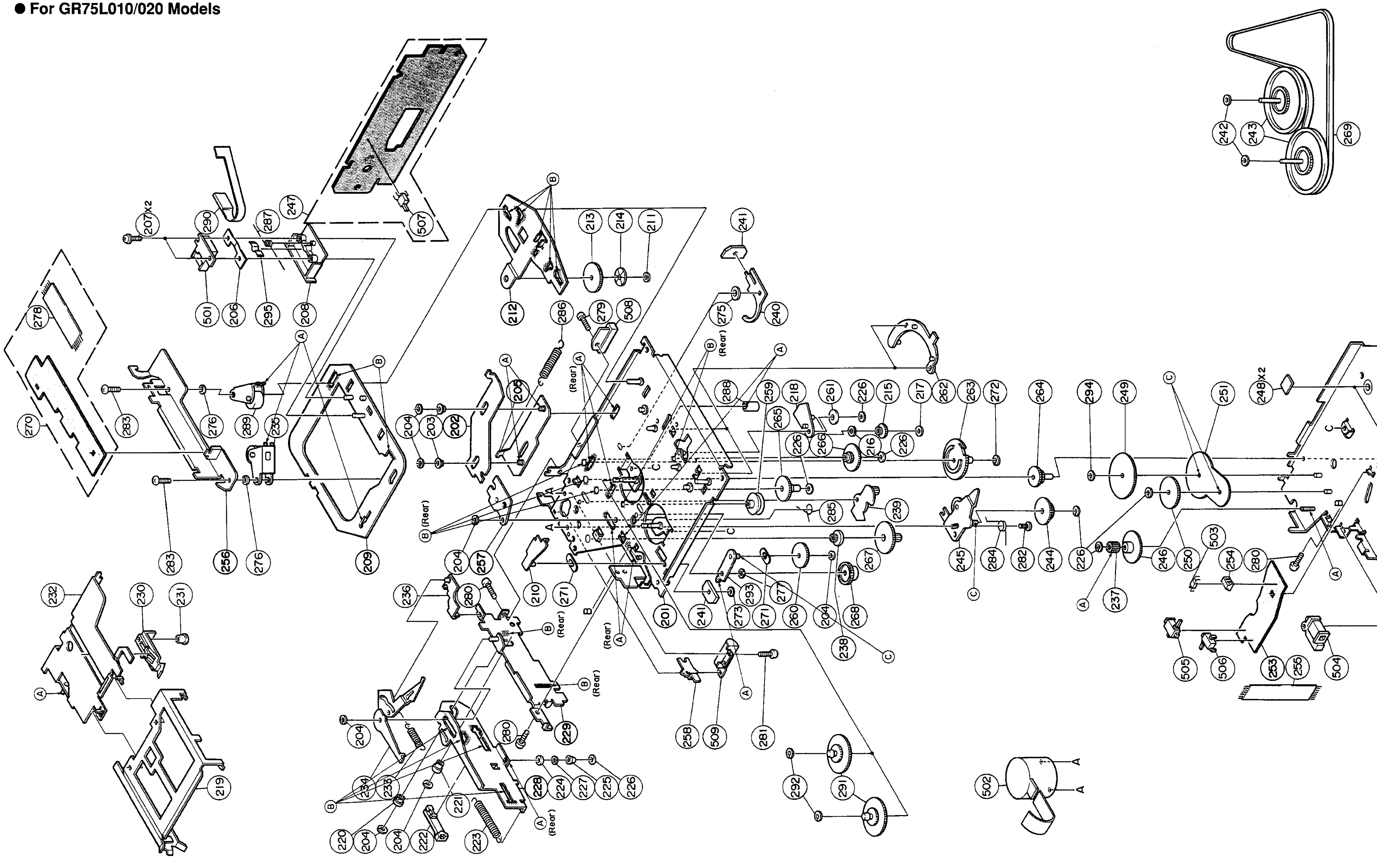
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Ⓑ	GREASE EM-30L
Ⓒ	FLOIL 425A

A B C D E F G H

Cassette Deck Assembly Parts List (2/3)

Note : The parts without parts list are not supplied.

Symbol	No.	IN-dex	Part No.	Description
	203	3-C	43A11072W01	Roll, Sub Head
	204		04B41345P01	Washer, Lock(M1.2)
	206	2-B	41A21671W01	Spring, Head
	207	2-B	03S40019G03	Screw, F-Locks(M2x4)
	208	2-B	43B12545W01	Tape, Guide
	210	4-C	01A10206W01	Assy., Riv Lever R/F Sol.
	211	2-D	04B41345P29	Washer, Lock(M2.6)
	213	2-D	44A10295W01	Gear, Sensor
	214	2-D	14A10681W01	Reflector
	215	3-E	44A10142W01	Gear, Planet
	216	3-E	41A10097W02	Spring, Clutch
	217	3-E	04B41345P31	Washer, Lock(M1.7)
	218	3-E	01A21853W01	Assy., Riv Lever Reverse
	219	4-B	07B10074W01	Holder, Cassette
	220	5-B	43A12583W01	Roller, Eject
	221	5-C	43A22153W01	Roller, Plate Base
	222	5-C	44A82206F01	Rack
	223	5-C	41B10386W03	Spring, GR(Rack)
	224	4-C	43A10121W01	Roller, Eject(A)
	225	4-D	43A10360W01	Roller, Eject(B)
	226		04B41345P11	Washer, Lock(M1.2)
	227	4-D	43A12377W01	Roller, Eject(C)
	230	4-A	45B10376W01	Slider
	231	4-B	47A63278F01	Shaft, Slider
	232	4-A	01A10212W01	Assy., Riv Plate Base
	233	4-C	41B10386W01	Spring, Eject Arm
	234	4-B	01A21754W01	Assy., Riv Eject Arm(A)
	235	3-B	01B10381W02	Assy., Pinch Roller
	236	4-C	45A10087W01	Lever, Pack In SW.
	237	4-F	44A20314W01	Pinion, Eject
	238	4-E	44A13617W01	Gear, Motor Idler(B)
	239	3-E	01A10201W02	Assy., Riv Lever Pause
	240	2-D	45A10092W01	Lever, Play
	241		76T10374W01	Chip
	242	1-G	04S40075G05	Washer, Polyslider (M2.1)
	243	1-G	01A10368W01	Assy., Flywheel
	244	3-F	44A10141W02	Gear, Eject Idler
	245	3-E	01A10205W02	Assy., Riv Lever Clutch(A)
	246	3-F	44A10145W01	Gear, Eject
	247	2-B	01V23700W03	Assy., GR Control P.C. Board
	248	3-G	43A90918F01	Spacer, Polyslider
	249	3-F	44A11063W01	Gear, Bottom(A)
	250	3-F	44A11064W01	Gear, Bottom(B)
	251	3-G	34A11122W02	Washer, GR
	252	3-H	01A10210W02	Assy., Riv. Cover Bottom
	254	3-G	15B11065W01	Guide, Photo
	255	4-G	30T15126W01	Wire, PC Sensor(7P)
	258	4-D	45A10101W01	Lever, Eject Sol.
	259	3-D	49A10131W01	Pulley, Idler
	260	4-E	44A10133W01	Gear, Take Up
	261	3-E	44A10134W01	Gear, Sun
	262	3-E	44B10135W01	Gear, Fix
	263	3-E	44B21670W01	Gear, Pause
	264	3-F	44A10137W01	Gear, Pause Idler(A)
	265	3-D	44A10379W01	Gear, Pause Idler(B)
	266	3-E	44A10138W01	Gear, Reverse Idler
	267	3-E	44A10139W01	Gear, Motor Idler
	268	4-E	44A11062W01	Gear, Reel Idler
	269	1-G	42A10380W01	Belt, GR
★	270	3-A	01V11500W19	Assy., GR Audio P.C. Board
◆	270	3-A	01V14700W68	Assy., GR Audio P.C. Board
	271		41A10097W02	Spring, Clutch
	272	3-F	04B41345P15	Washer, Lock(M1.2)
	273	4-D	04B41345P02	Washer, Lock(M1.7)
	274	3-H	04B41345P17	Washer, Lock(M1)
	275	2-D	04B41345P30	Washer, Lock(M3.1)
	276	3-B	04B41345P32	Washer, Lock(M3.1)
	277	4-E	04B41345P06	Washer, Lock(M2.1)
	278	2-A	30T15126W02	Wire, PC Joint 7P
	279	2-D	03S44205G78	Screw, Pan(M2x6)
	280		03S44205G30	Screw, Pan(M2.6x4)
	281	4-D	03S72235F38	Screw, Pan(M2x3.3)
	282	3-F	03A12132W02	Screw, Eject Clutch (M2x2.3)
	283		03S43997P64	Screw, Pan(M1.7x3)
	284	3-F	41A10384W01	Spring, Eject Clutch
	285	3-E	41A10385W01	Spring, Cas. Push
	286	2-C	41B10386W02	Spring, Sub Head
	287	2-B	41A10387W01	Spring, Pinch Roller
	288	3-D	43A12719W01	Roller, Pause
	289	3-B	01B10381W01	Assy., Pinch Roller
	290	2-B	84T10367W01	Head P.C. Board

Notes : ★ ; For GR75L010 model only ◆ ; For GR75L020 model only

Others : Common

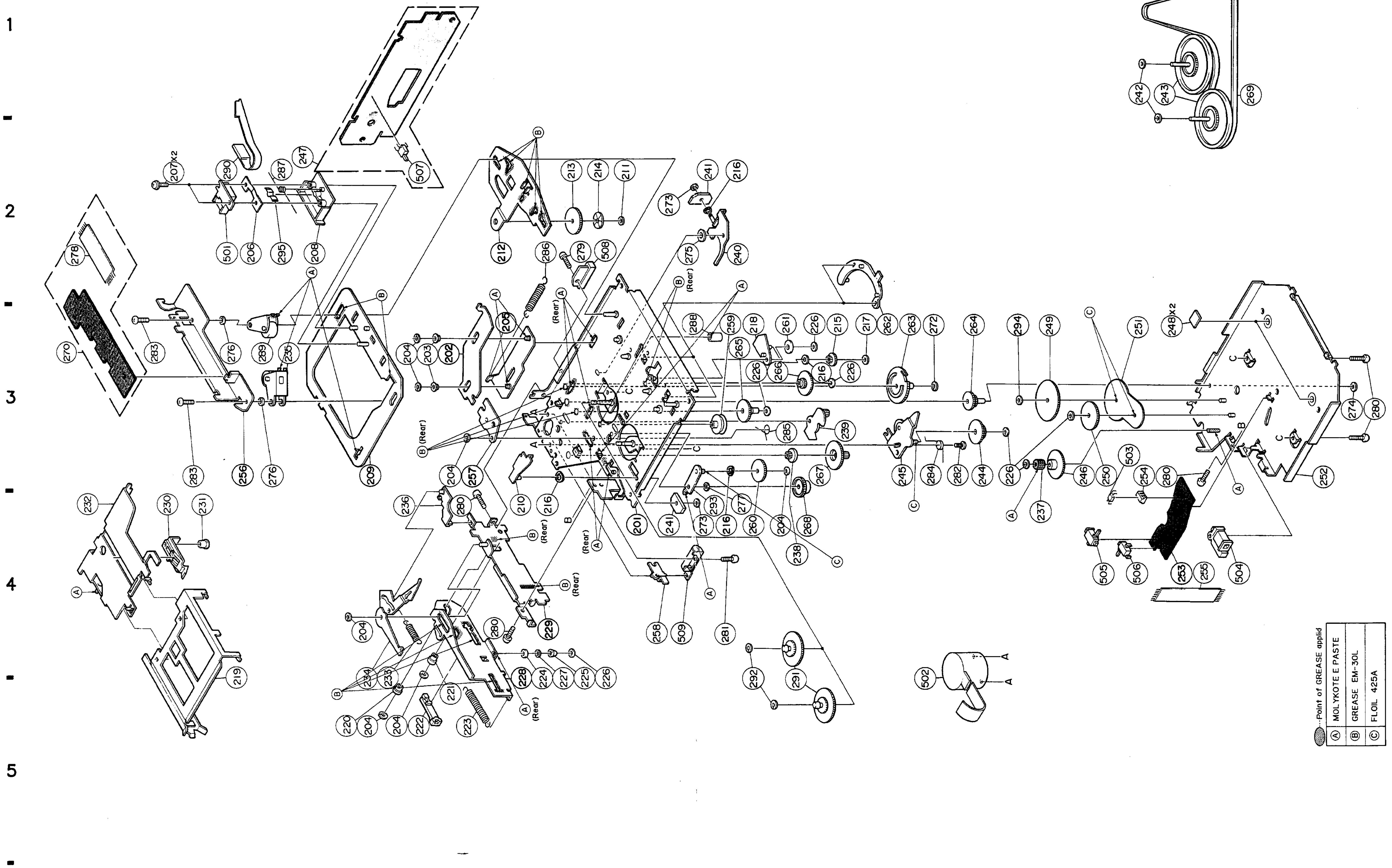
Symbol	No.	IN-dex	Part No.	Description
	291	4-E	01T15164W03	Assy., Reel
	292	4-E	04B41345P12	Washer, Lock(M1.7)
	293	4-D	01A11078W01	Assy., Riv Lever Take Up
	294	3-F	04B41345P34	Washer, Lock(M1.2)
	295	2-B	26A20537W01	Shield, Plate
Miscellaneous				
★	501	2-B	88T10373W01	Head
◆	501	2-B	88T15971W01	Head
	502	4-E	01V23900W60	Assy., Motor
	503	3-G	51T15144W01	Sensor, Photo
	504	4-G	01T10371W01	R/F Sol. Assy
	505	4-F	40T15382W01	SW., Detector (Pack Down)
	506	4-G	40T15382W01	SW., Detector (Metal)
	507	2-C	40T15222W01	SW., Detector (Pack In)
	508	2-D	01T15249W01	Assy., Play Solenoid
	509	4-D	01T10369W02	Assy., Eject Solenoid

Notes : ★ ; For GR75L010 model only ◆ ; For GR75L020 model only

Others : Common

Exploded View (GR-Y Series) (3/3)

- **For GR75L02Y Model**


1
2
3
4
5
207X2
290
287
247
507
501
206
295
208
278
270
283
276
289
235
Ⓐ
Ⓑ
283
256
276
209
213
214
211
212
286
279
508
204
203
202
205
Ⓐ
(Rear)
Ⓑ (Rear)
204
257
273
241
216
275
240
Ⓑ (Rear)
288
259
218
261
226
215
217
262
263
272
265
226
266
216
226
264
294
249
Ⓒ
251
248X2
285
239
245
284
282
244
226
250
246
503
254
280
274
280
252
210
216
201
241
273
293
216
277
260
204
238
267
268
Ⓒ
Ⓐ
237
Ⓐ
232
230
231
236
280
Ⓑ (Rear)
Ⓐ (Rear)
B
Ⓑ (Rear)
229
Ⓐ
219
204
234
233
220
204
204
222
221
223
280
228
224
227
225
226
Ⓐ (Rear)
258
509
281
Ⓐ
292
291
502
A
A
505
506
253
255
504
242
243
269
C
B
C

Ⓐ	MOLYKOTE E PASTE
Ⓑ	GREASE EM-30L
Ⓒ	FLOIL 425A

▨…Point of GREASE applid

Cassette Deck Assembly Parts List (GR-Y Series) (3/3)

Note : The parts without parts list are not supplied.

Symbol No.	IN-dex	Part No.	Description
203	3-C	43A11072W01	Roll, Sub Head
204		04B41345P01	Washer, Lock(M1.2)
206	2-B	41A21671W01	Spring, Head
207	2-B	03S40019G03	Screw, F-Locks(M2x4)
208	2-B	43B12545W01	Tape, Guide
210	4-C	01A10206W01	Assy., Riv Lever R/F Sol.
211	2-D	04B41345P38	Washer, Lock(M2.6)
213	2-D	44A10295W01	Gear, Sensor
214	2-D	14A10681W01	Reflector
215	3-E	44A10142W01	Gear, Planet
216		41A10097W02	Spring, Clutch
217	3-E	04B41345P31	Washer, Lock(M1.7)
218	3-E	01A21853W01	Assy., Riv Lever Reverse
219	4-B	07B10074W01	Holder, Cassette
220	5-B	43A12583W01	Roller, Eject
221	5-C	43A63281F01	Roller, Plate Base
222	5-C	44A82206F01	Rack
223	5-C	41B10386W03	Spring, GR(Rack)
224	4-C	43A10121W01	Roller, Eject(A)
225	4-D	43A10360W01	Roller, Eject(B)
226		04B41345P11	Washer, Lock(M1.2)
227	4-D	43A12377W01	Roller, Eject(C)
230	4-A	45B10376W01	Slider
231	4-B	47A63278F01	Shaft, Slider
232	4-A	01A10212W01	Assy., Riv Plate Base
233	4-C	41B10386W01	Spring, Eject Arm
234	4-B	01A21754W01	Assy., Riv Eject Arm(A)
235	3-B	01B10381W02	Assy., Pinch Roller
236	4-C	45A10087W01	Lever, Pack In SW.
237	4-F	44A20314W01	Pinion, Eject
238	4-E	44A13617W01	Gear, Motor Idler(B)
239	3-E	01A10201W02	Assy., Riv Lever Pause
240	2-D	01A30879W01	Assy., Riv. Play Sol.
241		76T10374W01	Chip
242	1-G	04S40075G05	Washer, Polyslider (M2.1)
243	1-G	01A10368W01	Assy., Flywheel
244	3-F	44A10141W01	Gear, Eject Idler
245	3-E	01A10205W02	Assy., Riv Lever Clutch(A)
246	3-F	44A10145W01	Gear, Eject
247	2-B	01V23700W04	Assy., GR Control P.C. Board

Symbol No.	IN-dex	Part No.	Description
248	3-G	43A90918F01	Spacer, Polyslider
249	3-F	44A11063W01	Gear, Bottom(A)
250	3-F	44A11064W01	Gear, Bottom(B)
251	3-G	34A11122W02	Washer, GR
252	3-H	01A10210W02	Assy., Riv. Cover Bottom
254	3-G	15B11065W01	Guide, Photo
255	4-G	30T15126W01	Wire, PC Sensor(7P)
258	4-D	45A10101W01	Lever, Eject Sol.
259	3-D	49A10131W01	Pulley, Idler
260	4-E	44A10133W01	Gear, Take Up
261	3-E	44A10134W01	Gear, Sun
262	3-E	44B10135W01	Gear, Fix
263	3-E	44B21670W01	Gear, Pause
264	3-F	44A10137W01	Gear, Pause Idler(A)
265	3-D	44A10379W01	Gear, Pause Idler(B)
266	3-E	44A10138W01	Gear, Reverse Idler
267	3-E	44A10139W01	Gear, Motor Idler
268	4-E	44A11062W01	Gear, Reel Idler
269	1-G	42A10380W01	Belt, GR
270	3-A	01V33300W03	Assy., GR Audio P.C. Board
272	3-F	04B41345P15	Washer, Lock(M1.2)
273		04B41345P02	Washer, Lock(M1.7)
274	3-H	04B41345P17	Washer, Lock(M1)
275	2-D	04B41345P30	Washer, Lock(M3.1)
276	3-B	04B41345P32	Washer, Lock(M3.1)
277	4-E	04B41345P37	Washer, Lock(M2.1)
278	2-A	30T15126W02	Wire, PC Joint 7P
279	2-D	03S44205G78	Screw, Pan(M2x6)
280		03S44205G30	Screw, Pan(M2.6x4)
281	4-D	03S72235F38	Screw, Pan(M2x3.3)
282	3-F	03A12132W02	Screw, Eject Clutch (M2x2.3)
283		03S43997P64	Screw, Pan(M1.7x3)
284	3-F	41A10384W01	Spring, Eject Clutch
285	3-E	41A10385W01	Spring, Cas. Push
286	2-C	41B10386W02	Spring, Sub Head
287	2-B	41A10387W01	Spring, Pinch Roller
288	3-D	43A12719W01	Roller, Pause
289	3-B	01B10381W01	Assy., Pinch Roller
290	2-B	84T35271W01	Head P.C. Board

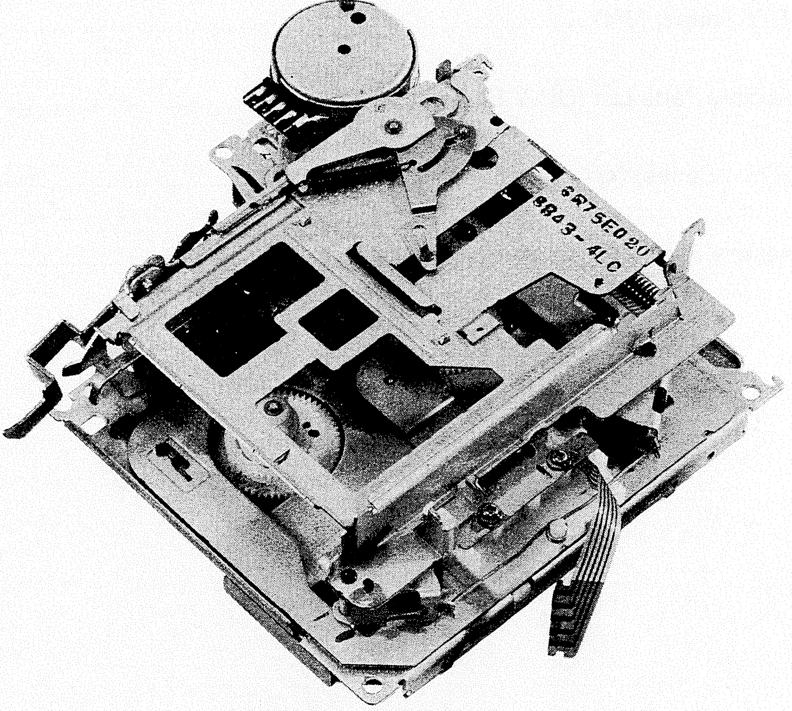
Symbol No.	IN-dex	Part No.	Description
291	4-E	01T15164W03	Assy., Reel
292	4-E	04B41345P12	Washer, Lock(M1.7)
293	4-D	01A30161W01	Assy., Riv Lever Take Up
294	3-F	04B41345P34	Washer, Lock(M1.2)
295	2-B	26A20537W01	Shield, Plate
Miscellaneous			
501	2-B	88T15971W01	Head
502	4-E	01V23900W60	Assy., Motor
503	3-G	51T15144W01	Sensor, Photo
504	4-G	01T10371W01	R/F Sol. Assy
505	4-F	40T15382W01	SW., Detector (Pack Down)
506	4-G	40T15382W01	SW., Detector (Metal)
507	2-C	40T15222W01	SW., Detector (Pack In)
508	2-D	01T15249W01	Assy., Play Solenoid
509	4-D	01T10369W02	Assy., Eject Solenoid

ALPINE®

SERVICE MANUAL

Cassette Deck Mechanism

ADDENDUM & REVISED (VI)


6R75E020
8843-4LC

GR/GR-Y SERIES

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Cassette Deck Assembly Parts List (GR75H Series) (4/4) ....31 to 33

List of Usable Lock Washers

	SIZE	PARTS NO.	QUANTITY					
			GR75E Series	GR75L Series	GR-Y Series	GR75H 020/030/ 120/130	GR75H 12A/13A	GR75H 110
1	(M1.2 × 3.5 × 0.25)	04B41345P01	4	4	4	2	2	2
2	(M1.7 × 3.5 × 0.25)	04B41345P02	1	1	1	4	6	4
3	(M1.2 × 2.5 × 0.25)	04B41345P11	8	8	8	9	9	9
4	(M1.7 × 3.5 × 0.35)	04B41345P12	2	2	2	2	2	0
5	(M1.2 × 3.5 × 0.35)	04B41345P15	2	2	2	2	2	2
6	(M1 × 2.5 × 0.25)	04B41345P17	1	1	1	2	2	2
7	(M2.6 × 5 × 0.25)	04B41345P29	1	1	1	1	1	1
8	(M3.1 × 8 × 0.05)	04B41345P30	1	1	1	1	1	1
9	(M3.1 × 5 × 0.35)	04B41345P32	2	2	2	2	2	2
10	(M1.2 × 2.5 × 0.3)	04B41345P34	1	1	1	0	0	0
11	(M1.7 × 2.8 × 0.25)	04B41345P35	1	1	1	2	2	2
12	(M2.1 × 4 × 0.25)	04B41345P37	1	1	1	0	0	0
13	(M2.1 × 4 × 0.13)	04S40075G05	2	2	2	3	4	1
14	(M2.1 × 4 × 0.3)	04S40075G58	0	0	0	1	1	1
15	(M2.1 × 5.5 × 0.5)	04S40075G62	0	0	0	1	1	1
16	(M2.1 × 5.5 × 0.13)	04S40075G63	0	0	0	1	1	1

List of Usable Oil

1) Molykote G paste
2) Grease EM-30L
3) Grease PG-671

List of Usable Jigs

1) GR bottom gear jig (Part No. 44A20788W01)
2) Head height adjustment gauge
   AI-500 (Part No. AI-500)

Memo

Disassembly, Assembly and Replacement of Functional Parts

1. Disassembly and Assembly of Bottom Cover

(1) Turn the mechanism around as shown in Figure 1.

(2) Remove M1 lock washer ① as shown in Figure 1.

(3) Remove three screws ② as shown in Figure 1.

(4) Lift the bottom cover slowly from the position Ⓐ-1, pull the hooks out of the holes in the chassis, and remove the bottom cover as shown in Figure 1.

(5) When remounting the bottom cover, first turn the front of the mechanism up as shown in Figure 2.

(6) Slide the slider in the direction Ⓐ-2 as shown in Figure 2.

(7) Push down the cassette holder in the direction Ⓐ-3 as shown in Figure 2.

(8) Pull the door pin in the direction Ⓐ-4 so that the mechanism is locked in as shown in Figure 2.

(9) Turn the mechanism around as shown in Figure 3.

(10) Pull the automatic metal lever in the direction Ⓐ-5 and the RF solenoid chip in the direction Ⓐ-6 as shown in Figure 3.

(11) Insert the hooks of the bottom cover into the chassis in the direction Ⓐ-7, and then join the part Ⓐ-8 of the bottom cover to the chassis slowly, making sure that the 3 points indicated with the straight lines in the Figure 3 are fitted properly.
If there are troubles in mounting the bottom cover, do not apply force but remove the bottom cover once again and check the positions of the individual parts. (Refer to Figure 3.)

(12) Since the hooks marked Ⓐ-8 will be lifted slightly as shown in Figure 4, insert the jig through the hole Ⓐ-9, and fix it turning the jig slightly in the direction Ⓐ-11.
Instead of operation (12), turn the gear nose slowly with a precision screwdriver etc., taking care not to damage it.
After 2 to 3 turns, it will click into place.
(Refer to Figures 4 and 5.)

(13) Fix the screws and the lock washer that have been removed.

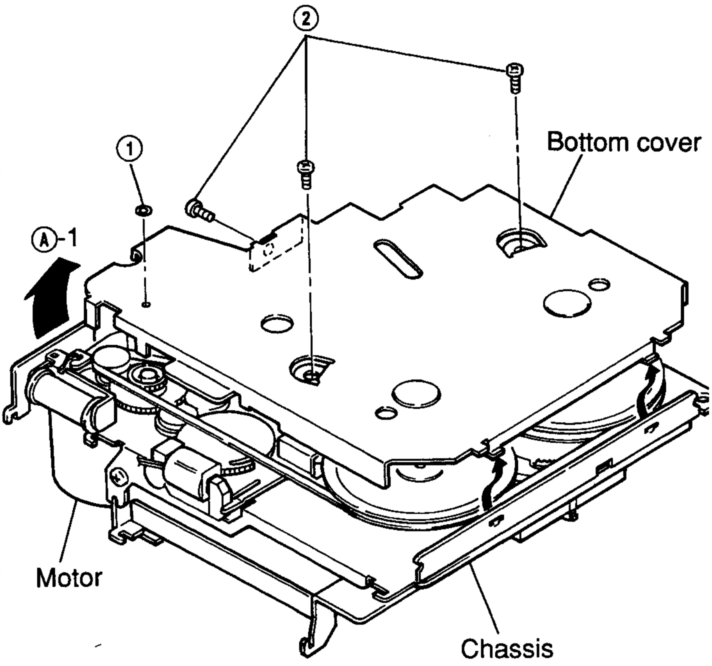


Figure 1

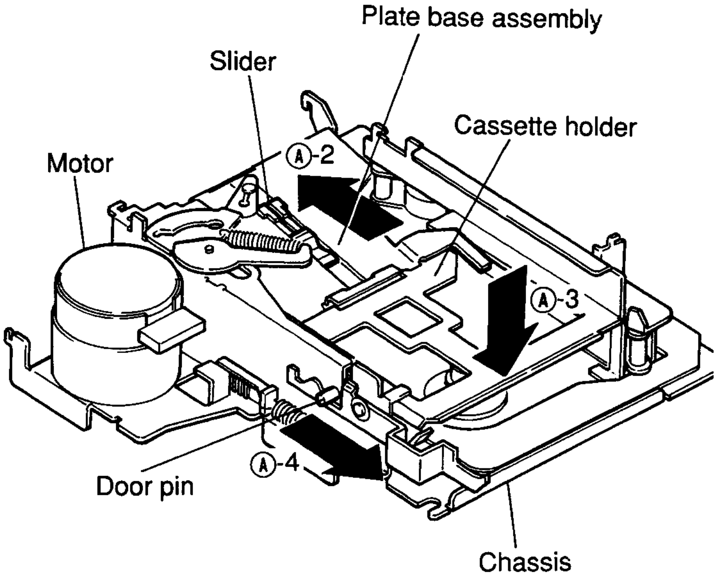


Figure 2

(14) Insert the jig into the hole Ⓐ-9 as shown in Figure and rotate the eject solenoid counterclockwise about 20 times, pulling it in the direction Ⓐ-10 with the finger.
Then the eject operation is completed.
Instead of operation (14), the eject operation can be performed by mounting the mechanism to the product. (Refer to Figures 4 and 5.)

Note: Do not reuse the used lock washers for mounting.
When turning the mechanism, be careful not to drop the gear and the flywheel.
Fasten the three screws with a fastening torque of 6 kg.cm.

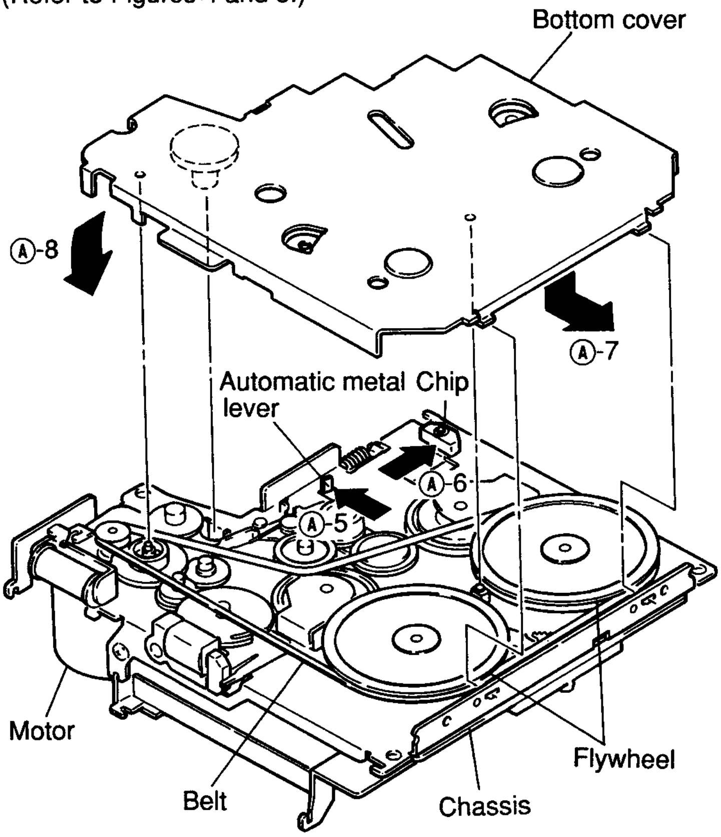

Bottom cover
Ⓐ-8
Ⓐ-7
Automatic metal lever
Chip
Ⓐ-6
Ⓐ-5
Motor
Belt
Chassis
Flywheel

Figure 3

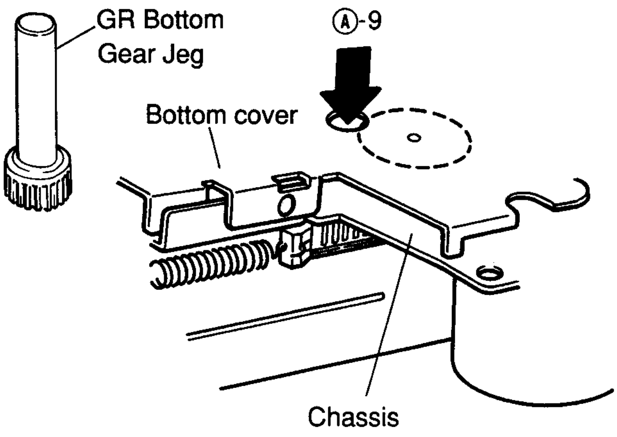

GR Bottom Gear Jeg
Ⓐ-9
Bottom cover
Chassis

Figure 4

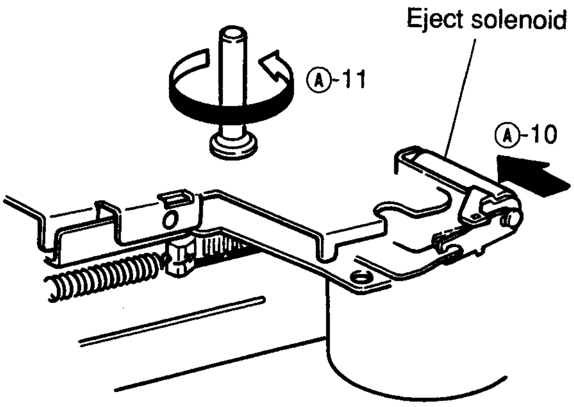

Eject solenoid
Ⓐ-11
Ⓐ-10

Figure 5

2. Replacement of the bottom cover mounting parts

a. Replacement of the eject gear

(1) Remove M1.2 lock washer ③ as shown in Figure 6.

(2) Pull the eject pinion out of the eject gear and remove the eject gear as shown in Figure 6.

(3) Apply the molykote E paste to the section Ⓑ-1, and mount the eject gear following the removal steps in the reverse order. After replacement is finished, make sure that the gear rotates smoothly. (Refer to Figure 6.)

Note: Do not reuse the used lock washers for remounting.
Take care to avoid damage by piercing and tearing.

b. Replacement of the RF solenoid

(1) Remove two solders ④ and remove the RF solenoid from the bottom cover by pulling it up as shown in Figure 6.

(2) Replace the solenoid with a new one, and remount it following the removal steps in the reverse order as shown in Figure 6.

Note: When removing solder ④, set the temperature of the soldering iron to 350° ± 10° and the soldering time to 1 – 3 seconds. Take care that the solder is not loose, that there is no shortcircuit and that the coating is not damaged.

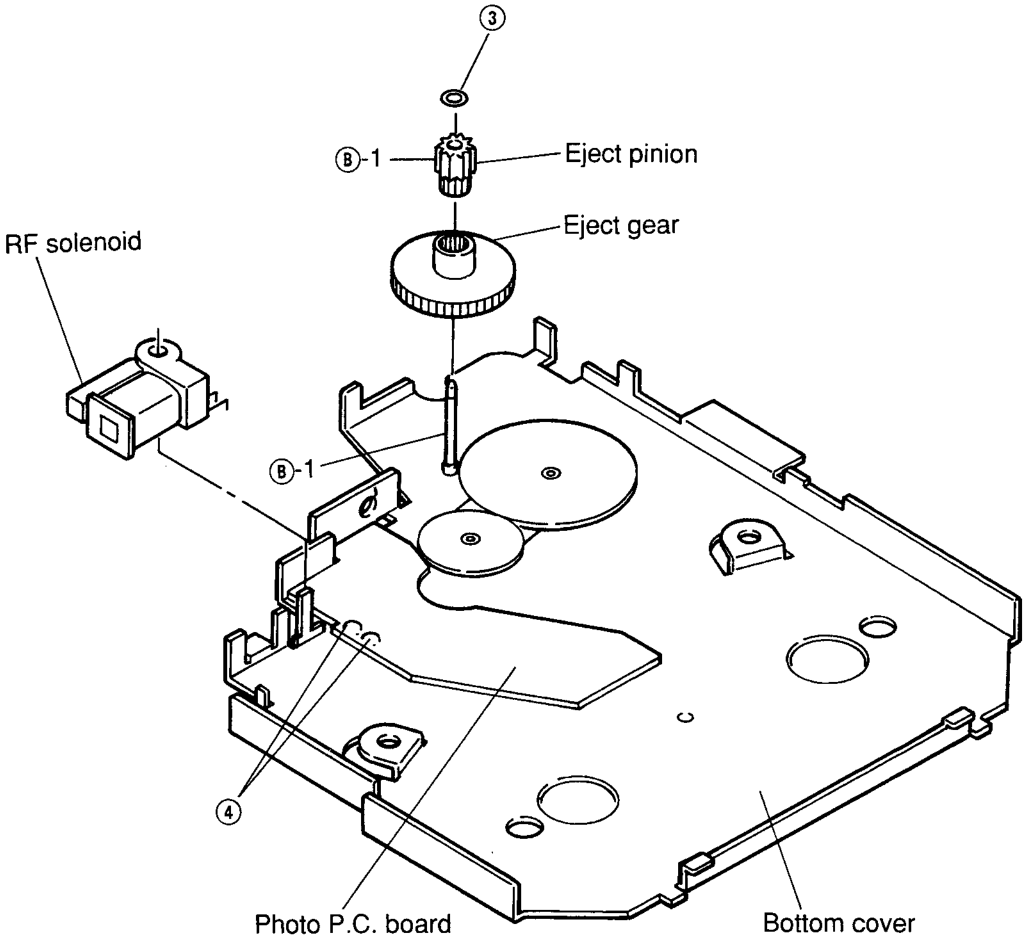


Figure 6

c. Replacement of the photo sensor

1. Remove four solders ⑤ as shown in Figure 7.
2. Remove the photo guide together with the photo sensor from the photo P.C. board as shown in Figure 7.
3. Insert the new photo sensor into the photo guide, and bend the legs of the photo sensor in the direction marked Ⓑ-2 as shown in Figure 7.
4. Insert the photo guide into the P.C. board and solder the legs so that the photo sensor is set as indicated by ⬚ in Figure 7.

Note: When using the soldering iron, set the temperature of the soldering iron to 350° ± 10° and the soldering time to 1 – 3 seconds. Take care that the solder is not loose, that there is no shortcircuit and that the coating is not damaged. Also take care that the photo guide is properly fixed and straight.

d. Replacement of the detector switch (Automatic metal pack-in)

1. Remove 4 solders ⑥ with which the switch is fixed as shown in Figure 7.
2. Prepare the terminals of the switch of the new solder as shown in Figure 8.
3. After that, insert the switch into the photo P.C. board, and solder the terminals.

Note: When using the soldering iron, refer to Item 2-C to make sure that the temperature of the soldering iron and the soldering time are proper. Also take care that the switch guide is properly fixed and straight.

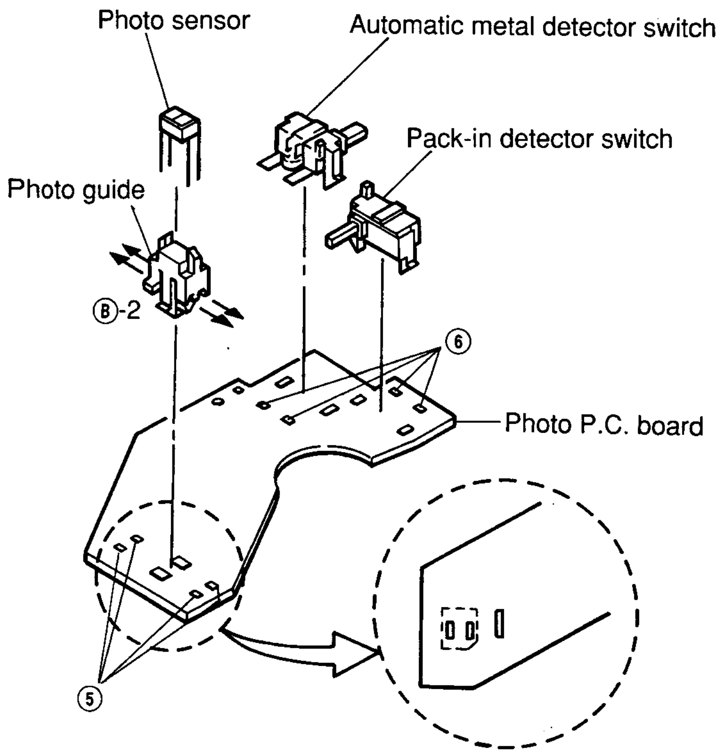


Figure 7

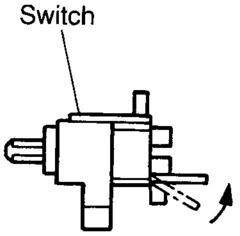


Figure 8

3. Replacement of the mounting parts on the rear of the main chassis

a. Replacement of the belt

(1) After removing the bottom cover, remove the belt.

(2) Clean the new belt with absolute alcohol, and fix it as shown in Figure 9.

Note: When fixing the belt, make sure that it is not twisted or dirty. When removing the belt, do not turn up the front of the chassis.

b. Replacement of the motor

(1) After removing the belt, remove spring ⑦ as shown in Figure 10.

(2) Remove solder ⑧-1, and remove the parallel wire (5P) from the control P.C. board as shown in Figure 11.

(3) Remove two screws ⑨ and ⑩, and remove the motor, taking care not to damage the motor idler gear. (Refer to Figure 10.)

(4) Mount the new motor following the removal steps in the reverse order.

Note: Refer to Item 2-C to make sure that the temperature of the soldering iron and the soldering time are proper. Since the parallel wire is very easily damaged, handle it with care.
Fasten the two screws with a fastening torque of 3 kg.cm.

*When inserting the clutch spring, be careful of the inserting direction as shown in the Figure.

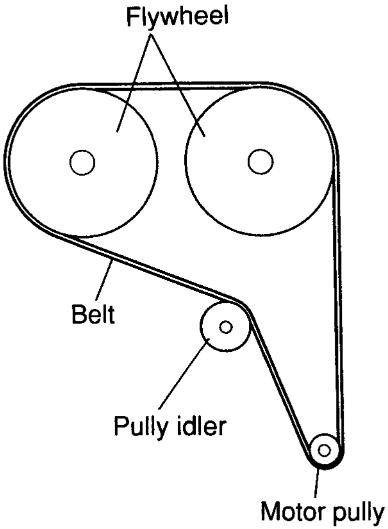
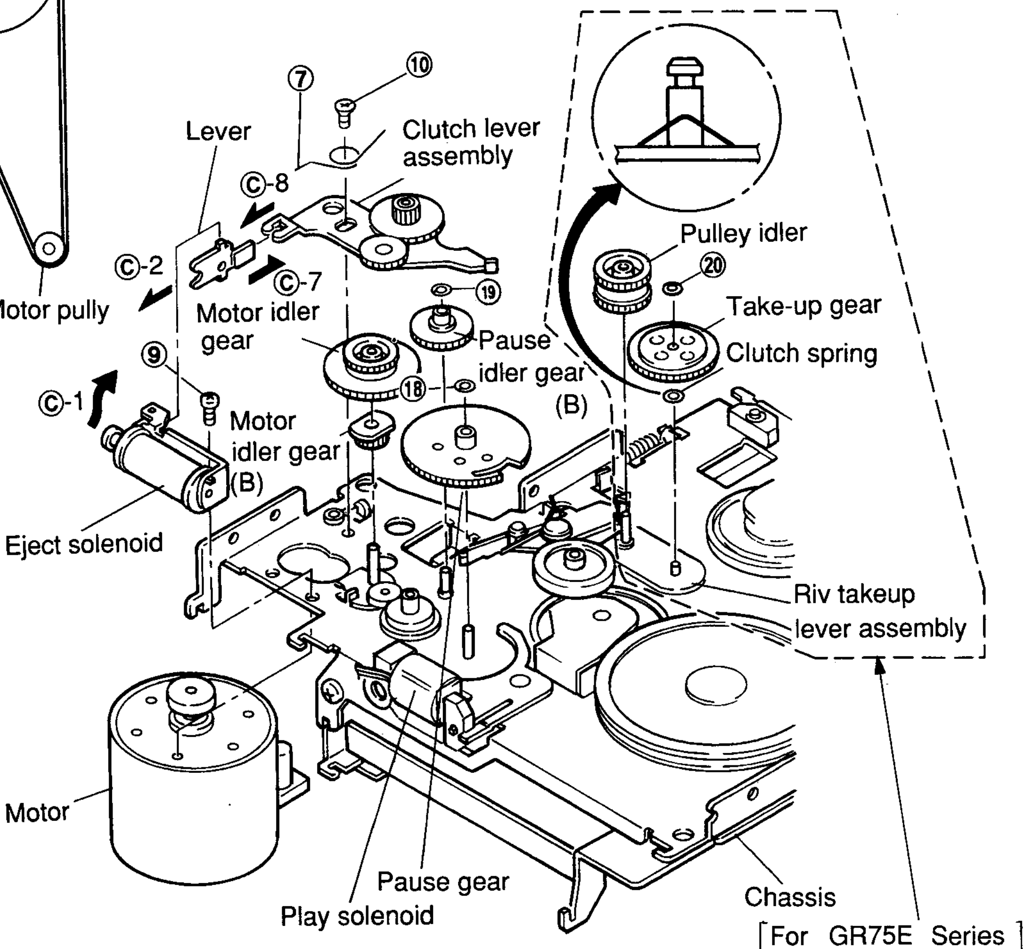

Flywheel
Belt
Pully idler
Motor pully

Figure 9


⑦
⑩
Clutch lever assembly
Lever
Ⓒ-8
Ⓒ-2
Ⓒ-7
Motor idler gear
⑨
Ⓒ-1
Motor idler gear (B)
Eject solenoid
⑲
Pause idler gear (B)
⑱
Pulley idler
⑳
Take-up gear
Clutch spring
Riv takeup lever assembly
Motor
Pause gear
Play solenoid
Chassis

For GR75E Series
GR75L Series
GR-Y Series
models

Figure 10

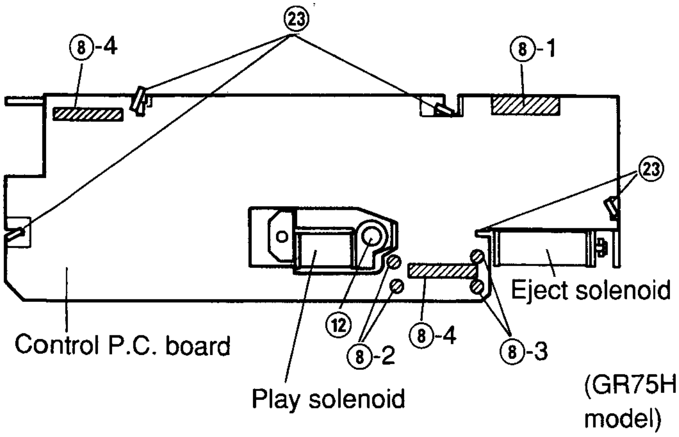
c. Replacement of the flywheels
  (1) After removing the belt, pull out the two flywheels. Take care not to loose the polyslider washer ⑪ located between the flywheel and the chassis. (Refer to Figure 12.)
  (2) Fix the polyslider washer to the new flywheel and mount the flywheel to the chassis.

d. Replacement of the play solenoid
  (1) Remove the two solders ⑧-2 as shown in Figure 11.
  (2) Remove one screw ⑫ and remove the solenoid as shown in Figure 11.
  (3) Mount the new solenoid following the removal steps in the reverse order.

Note: Refer to Item 2-C to make sure that the temperature of the soldering iron and the soldering time are proper. Fasten the screws with a fastening torque of 2.3 kg.cm.

e. Replacement of the eject solenoid
  (1) Remove two solders ⑧-3. Take care not to loose the tube that protects the wire. (Refer to Figure 11.)
  (2) Remove screw ⑨ and remove the solenoid as shown in Figure 10.
  (3) Align position ⓒ-1 of the new solenoid with position ⓒ-2 of the lever and fasten the screw as shown in Figure 10.
  (4) Lead the wire through the tube and solder it.

Note: Refer to Item 2-C to make sure that the temperature of the soldering iron and the soldering time are proper. Fasten the screws with a fastening torque of 3 kg.cm. As the solenoid wires are not insulated, do not let them cross each other.


㉓
⑧-4
⑧-1
㉓
Eject solenoid
Control P.C. board
⑫
⑧-2
⑧-4
⑧-3
Play solenoid

[For GR75E Series model]

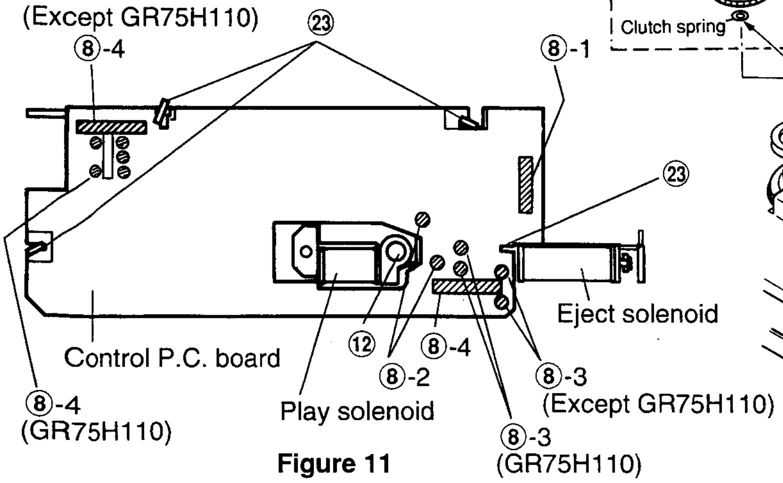

(Except GR75H110)
⑧-4
㉓
⑧-1
㉓
Eject solenoid
Control P.C. board
⑫
⑧-4
⑧-2
⑧-3
(Except GR75H110)
⑧-4
(GR75H110)
Play solenoid
⑧-3
(GR75H110)

Figure 11

[For GR75L Series
GR-Y Series
GR75H Series models]

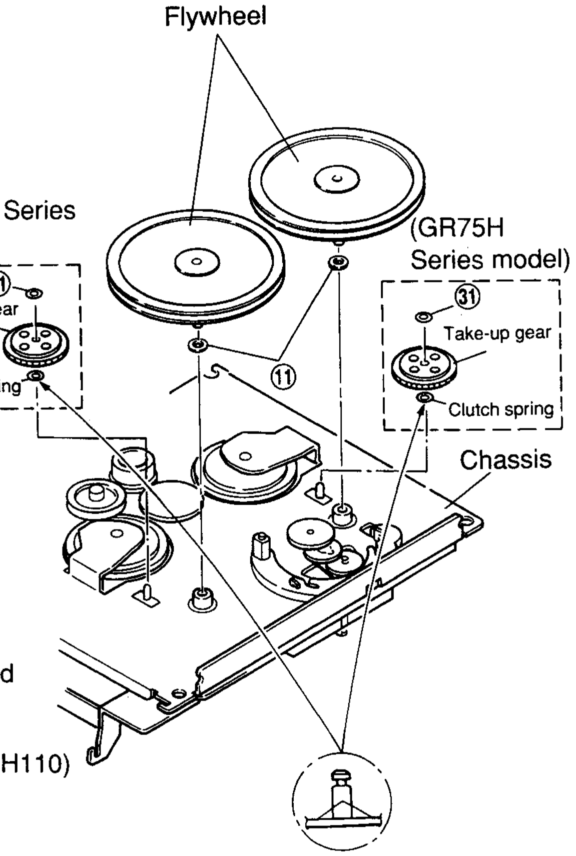

Flywheel
(GR75H Series model)
㉛
Take-up gear
Clutch spring
(GR75H Series model)
㉛
Take-up gear
Clutch spring
⑪
Chassis

Figure 12

f. Replacement of gears

(f-1) Replacement of the reverse idler gear

(1) Remove M1.2 lock washer ⑬, pull it up from the stud of the chassis and remove the gear as shown in Figure 13.

(2) Remount following the removal steps in the reverse order.

(f-2) Replacement of the sun gear

(1) Remove M1.2 lock washer ⑭, pull it up from the stud of the chassis and remove the gear as shown in Figure 13.

(2) Mount it, following the removal steps in the reverse order.

(f-3) Replacement of the fixing gear

(1) Adjust the two mounting claws for the fix gear on the chassis ⑮ and remove the section ⓒ-3 of the gear by pulling it up in the direction of the arrow shown in Figure 13.

(2) Insert the section ⓒ-4 of the new gear into the chassis, and mount it following the removal steps in the reverse order as shown in Figure 13.

(f-4) Replacement of the reverse lever assembly and planet gear

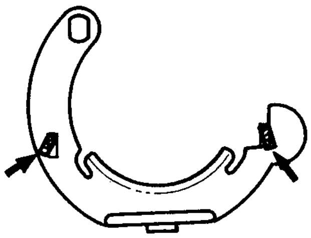
(1) Remove both the fixing gear and the sun gear and remove the reverse lever assembly as shown in Figure 13.

(2) Remove M1.7 lock washer ⑯ and remove the planet gear as shown in Figure 14.

(3) Mount the new planet gear and reverse lever following the removal steps in the reverse order.

Notes on f-1 through f-4:
After mounting all parts, check if the reverse lever moves in the directions marked ⓒ-5 when the reverse gear is turned clockwise and counterclockwise.

* After mounting the fixing gear, bend the claws ⑮ into the form of as shown in the Figure.



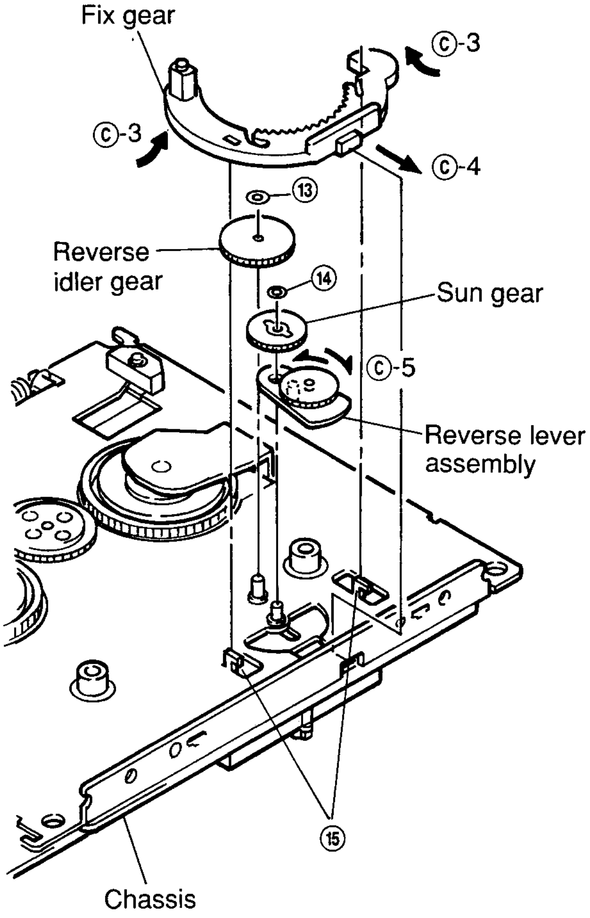


Figure 13

(f-5) Replacement of the clutch lever assembly and eject idler gear

(1) After removing the motor, remove the motor idler gear and the motor idler gear (B) and remove the clutch lever assembly as shown in Figure 10.
(2) Remove M1.2 lock washer ⑰ and remove the eject idler gear as shown in Figure 15.
(3) Mount the new gears and clutch lever following the removal steps in the reverse order.

Note: When mounting the gears to the lever, apply grease (PG-671) to the position ©-6 as shown in Figure 15. Align the position ©-7 with the position ©-8 and mount the clutch lever as shown in Figures 10 and 15.

(f-6) Replacement of the pause gear

(1) Remove M1.2 lock washer ⑱ and remove the pause gear pulling it up from the stud of the chassis as shown in Figure 10.
(2) Mount the new gear following the removal steps in the reverse order.

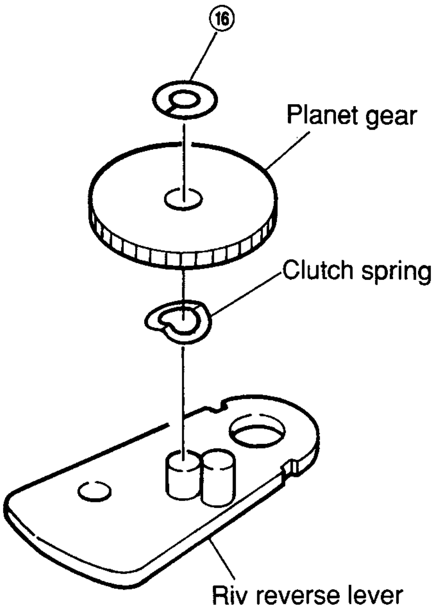
(f-7) Replacement of the pause idler gear (B)

(1) After removing the motor and the motor idler gear, remove M1.2 lock washer ⑲ and remove the gear by pulling it up from the stud of the chassis as shown in Figure 10.
(2) Mount the new gear by following the removal steps in the reverse order.

(f-8) Replacement of the take-up gear

(1) After removing the belt and the pulley idler gear, remove M1.2 lock washer ⑳ by pulling it up from the stud of the riv take-up lever assembly as shown in Figure 10. [For GR75E Series, GR75L Series, GR-Y Series models] After removing the Flywheel, remove M1.2 lock washer ㉛ and remove the gear by pulling it up from the stud of the chassis as shown in figure 12. [For GR75H Series model]
(2) Remount the take-up gear following the removal steps in the reverse order.

Notes on f:
Do not reus e the used washers. Take care to avoid damage by piercing and tearing.



[Disassembly Reverse Lever Assembly]

Figure 14

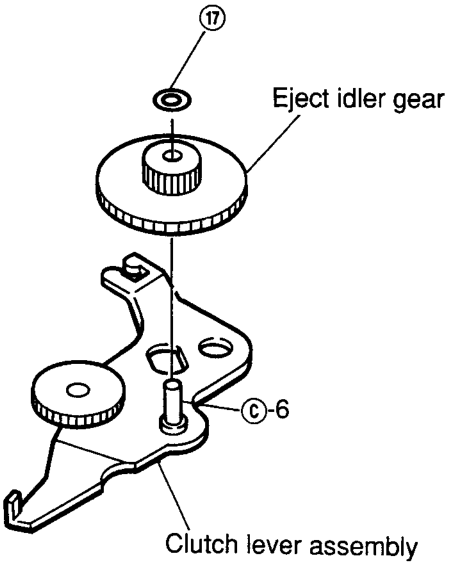


Figure 15

4. Replacement of the parts mounted on the front of the main chassis

a. Replacement of the audio P.C. board (Except GR75H110)

(1) Remove two solders ㉑ and remove the parallel wire (7P) and the head P.C. board as shown in Figure 16.

(2) Adjust the two claws ㉒ to the rectangular holes on the P.C. board and remove the P.C. board as shown in Figure 16.

(3) After replacement, mount the new P.C. board following the removal steps in the reverse order.

Note: The head P.C. board and the parallel wire are easily damaged. Handle them with care. Refer to Item 2-C to make sure that the temperature of the soldering iron and the soldering time are proper. Do not bring the soldering iron near the head P.C. board.

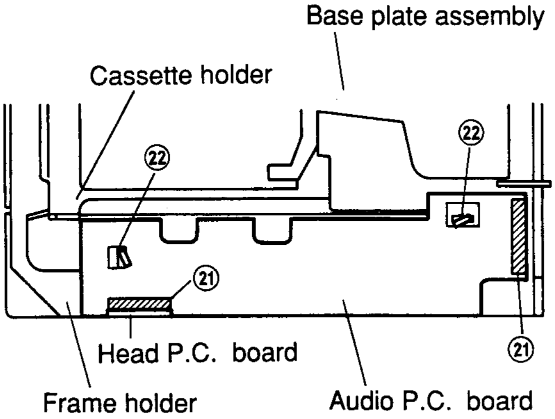

Base plate assembly
Cassette holder
㉒
㉒
㉑
Head P.C. board
㉑
Frame holder
Audio P.C. board

Figure 16

b. Replacement of the control P.C. board

(1) Remove seven solders ⑧ and remove the three parallel wires and the wires of the eject solenoid and of the play solenoid as shown in Figure 11.

(2) Remove five claws ㉓ and remove the P.C. board as shown in Figure 11. [For GR75E Series model] Remove four claws ㉓ and remove the P.C. board as shown in Figure 11. [For GR75L Series, GR-Y Series, GR75H Series models]

(3) After replacing the old P.C. board with a new one, mount it following the removal steps in the reverse order.

Note: As mentioned in Item 4-a, handle the parallel wires carefully, and be sure that the temperature of the soldering iron and the soldering time are proper. As the wires of the eject solenoid are not insulated, do not let them cross each other.

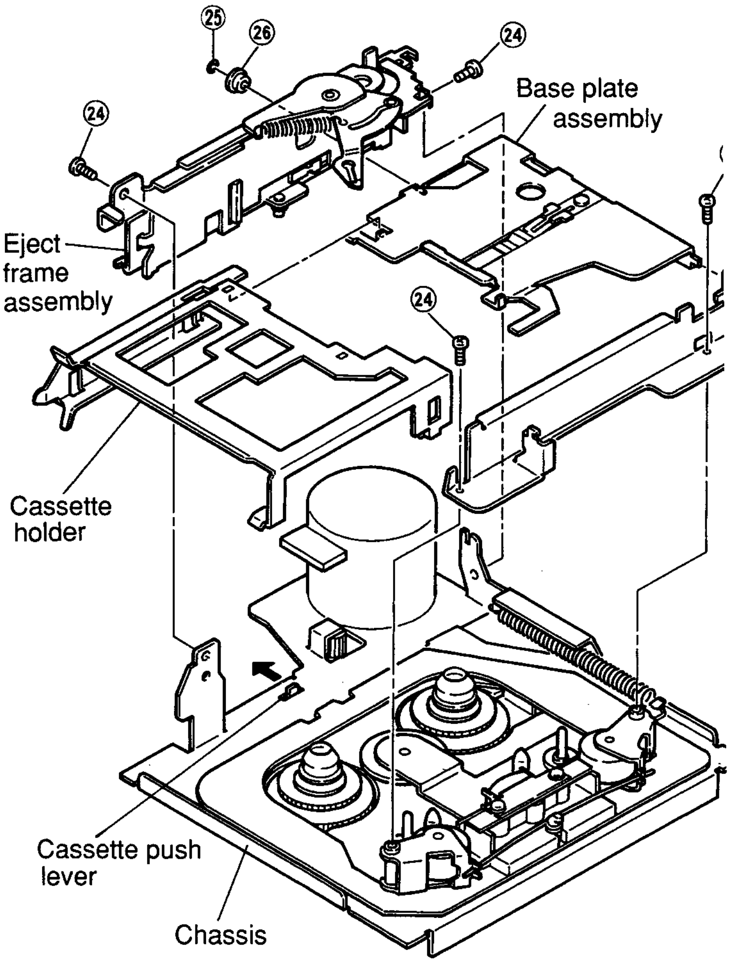

㉕
㉖
㉔
Base plate assembly
㉔
Eject frame assembly
㉔
Cassette holder
Cassette push lever
Chassis

Figure 17

c. Disassembly and assembly of the cassette holder

(1) Remove four screws ㉔ and remove the eject frame assembly and the frame holder as shown in Figure 17.

(2) Remove M1.2 lock washer ㉕ and plate base roller ㉖ and remove the cassette holder and the base plate assembly as shown in Figure 17.

(3) Remount them following the removal steps in the reverse order.

Notes: 1. When mounting the cassette holder and the base plate, insert the slider shaft into the eject arm and fix them turning the slider shaft in the direction indicated by the arrow in the figure. Make sure that the cassette holder and the base plate are in the cassette-in mode during this operation. (Refer to Figure 18).

2. When mounting the eject frame assembly, push the cassette push lever in the direction indicated by the arrow in the Figure 17.

3. When mounting the base plate assembly and the eject frame assembly, or when mounting the eject frame assembly to the chassis, do not apply excessive force to avoid deformations of the eject arm and the frame.

4. Do not reuse the used washers. Take care to avoid damage by piercing and tearing.

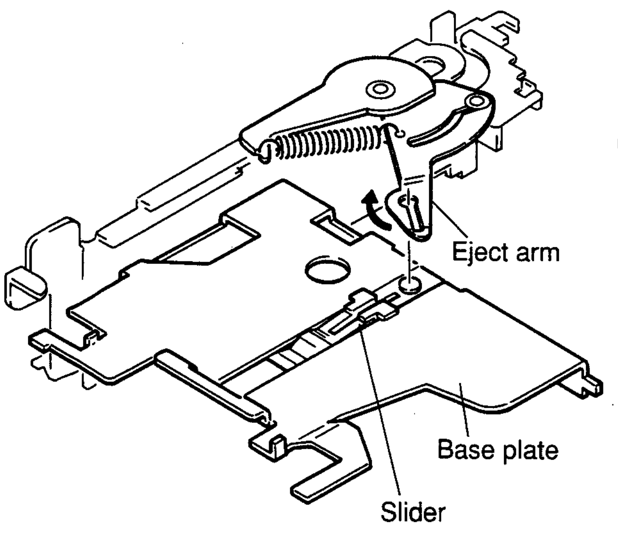


Figure 18

d. Replacement of the reels

(1) Remove M1.7 two lock washers ㉖ (Refer to figure 19).

(2) Move the select lever in the direction marked Ⓓ-1 in the Figure and remove the reel by gripping the reel gear as shown in Figure 19.

(3) After replacement, mount the new reels following the removal steps in the reverse order.

(4) After mounting, check the tape speed and the wow and flutter with test tape MTT-111.

Note: Since the reel is easily loosened if the cap is gripped, always handle it gripping the gear. Do not reuse the used washers. Take care to avoid damage by piercing and tearing.

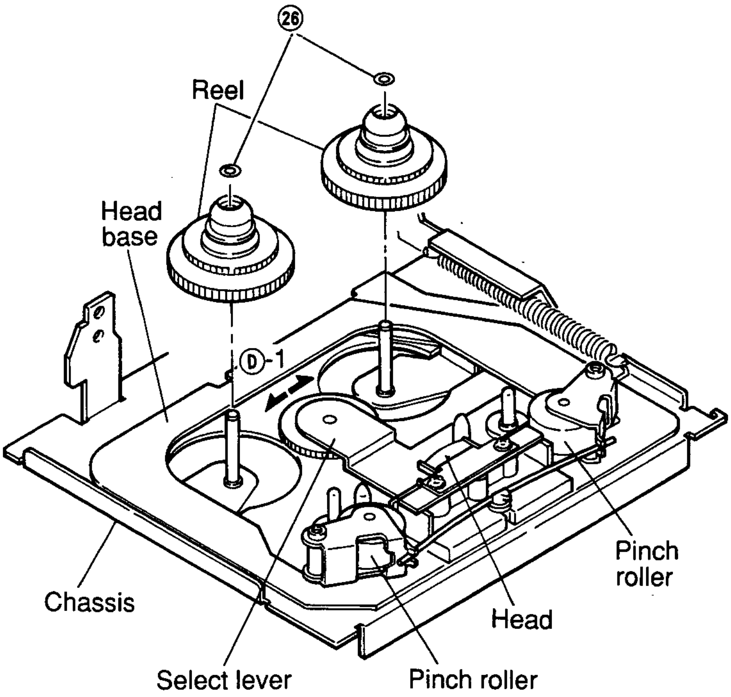


Figure 19

e. Replacement of the pinch rollers

(1) Remove pinch roller spring ㉗ as shown in Figure 20.

(2) Remove M3.1 two lock washers ㉘ and remove the pinch roller as shown in Figure 20.

(3) Mount the pinch rollers following the removal steps in the reverse order.
Apply insulation coating to the position Ⓓ-2 of the pinch roller as shown in Figure 20.

Note: Make sure that the pinch rollers are thoroughly fixed and that they are not deformed. Do not reuse used lock washers. Take care to avoid damage by piercing and tearing.

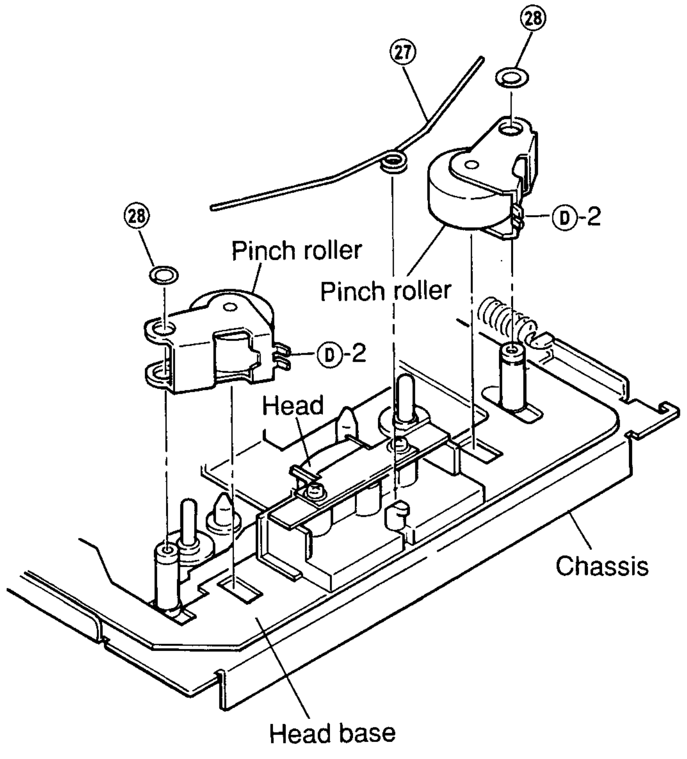

㉘
㉗
㉘
Ⓓ-2
Pinch roller
Pinch roller
Ⓓ-2
Head
Chassis
Head base

Figure 20

f. Replacement of the head

(1) After removing the pinch roller spring, remove two screws ㉙ as shown in Figure 21.

(2) Remove solder ㉚ and remove the head from the head P.C. board as shown in Figure 22.

(3) After replacement, mount the new head following the removal steps in the reverse order.

Notes: 1. Refer to Item 2-C to make sure that the temperature of the soldering iron and the soldering time are proper. Do not bring the soldering iron near the head P.C. board. Make sure that the head P.C. board is not lifted.

2. Fasten the two screws with a fastening torque of 2.3 kg.cm. Note that the tension of the head spring can be decreased if the screws are fastened too strongly.

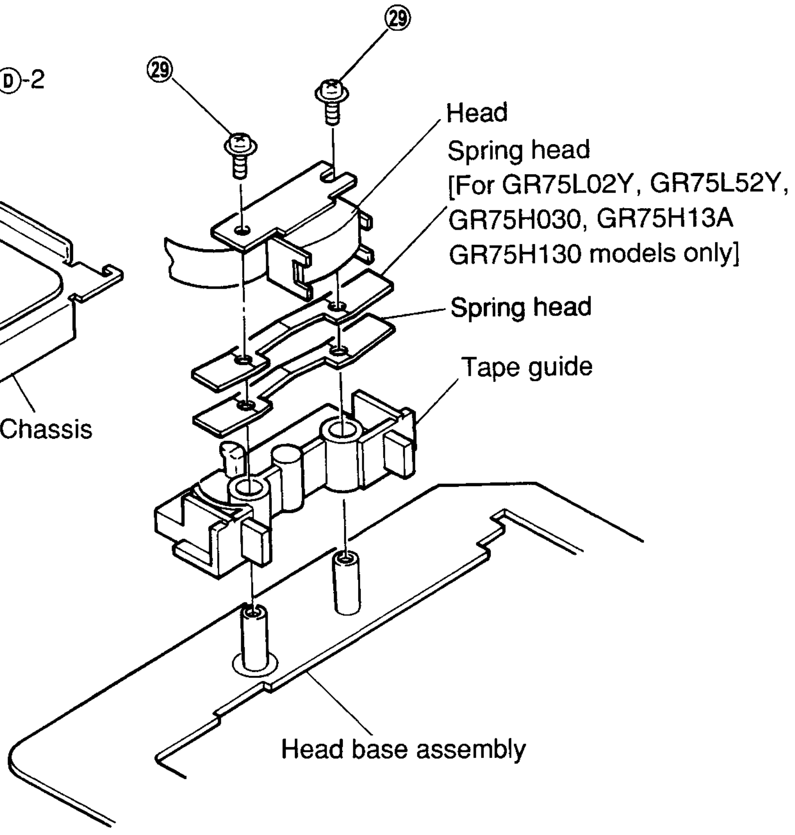

㉙
㉙
Head
Spring head
[For GR75L02Y, GR75L52Y, GR75H030, GR75H13A GR75H130 models only]
Spring head
Tape guide
Head base assembly

Figure 21

(4) Adjust the height of the head as shown in Figures 23, 24 and 25.

① Place the height adjustment gauge (AI-500) on the head base, and adjust the height so that the check bar fits in the tape head guide smoothly.

② When the check bar touches the top (or bottom) of the tape guide, insert a spacer (t 0.1 mm or polislider washer t 0.13 mm).
If necessary, remove the spacer.

Note: If you do not have a height gauge like described in (4)-①, run the tape at normal speed and adjust the height of the head and the tape head guide so that the tape does not curl.

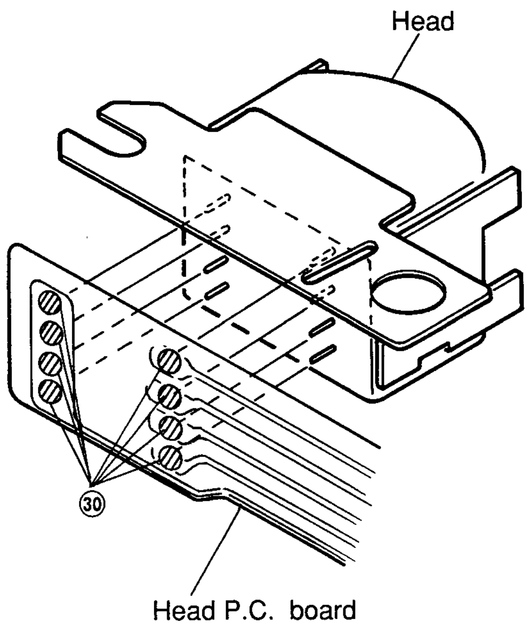

Head
㉚
Head P.C. board

Figure 22

(5) After having assembled the complete mechanism, adjust the angle of the head with test tape MTT-113C. (Refer to chapter "Adjustment of the head angle".) After the adjustment, apply the screw lock and fix the screws.

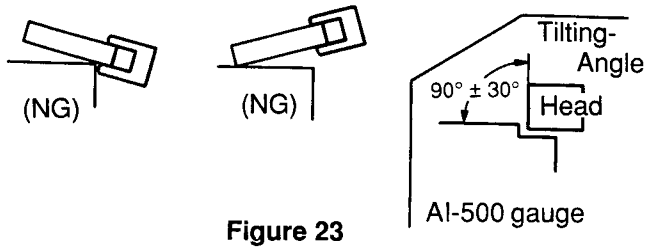

(NG)
(NG)
Tilting-Angle
90° ± 30°
Head
AI-500 gauge

Figure 23

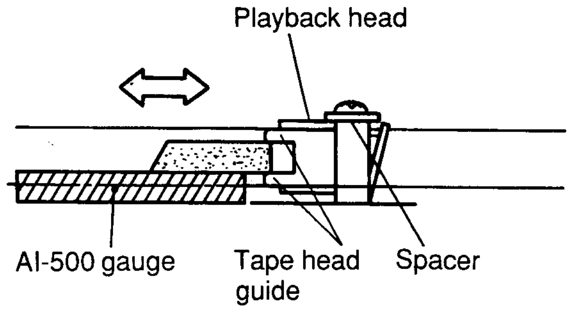
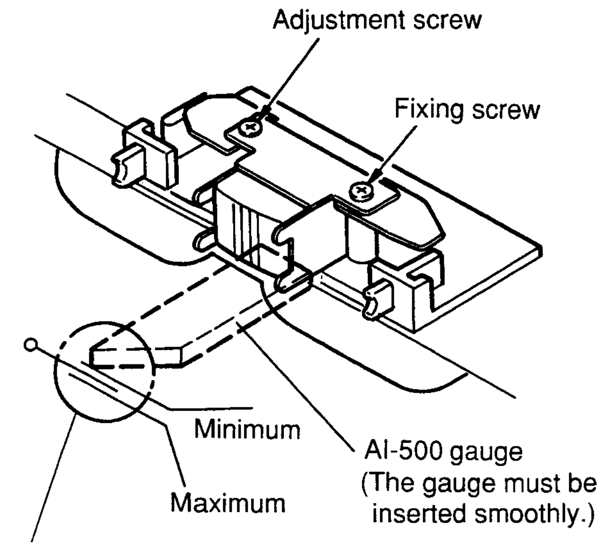

Playback head
AI-500 gauge
Tape head guide
Spacer

Figure 24

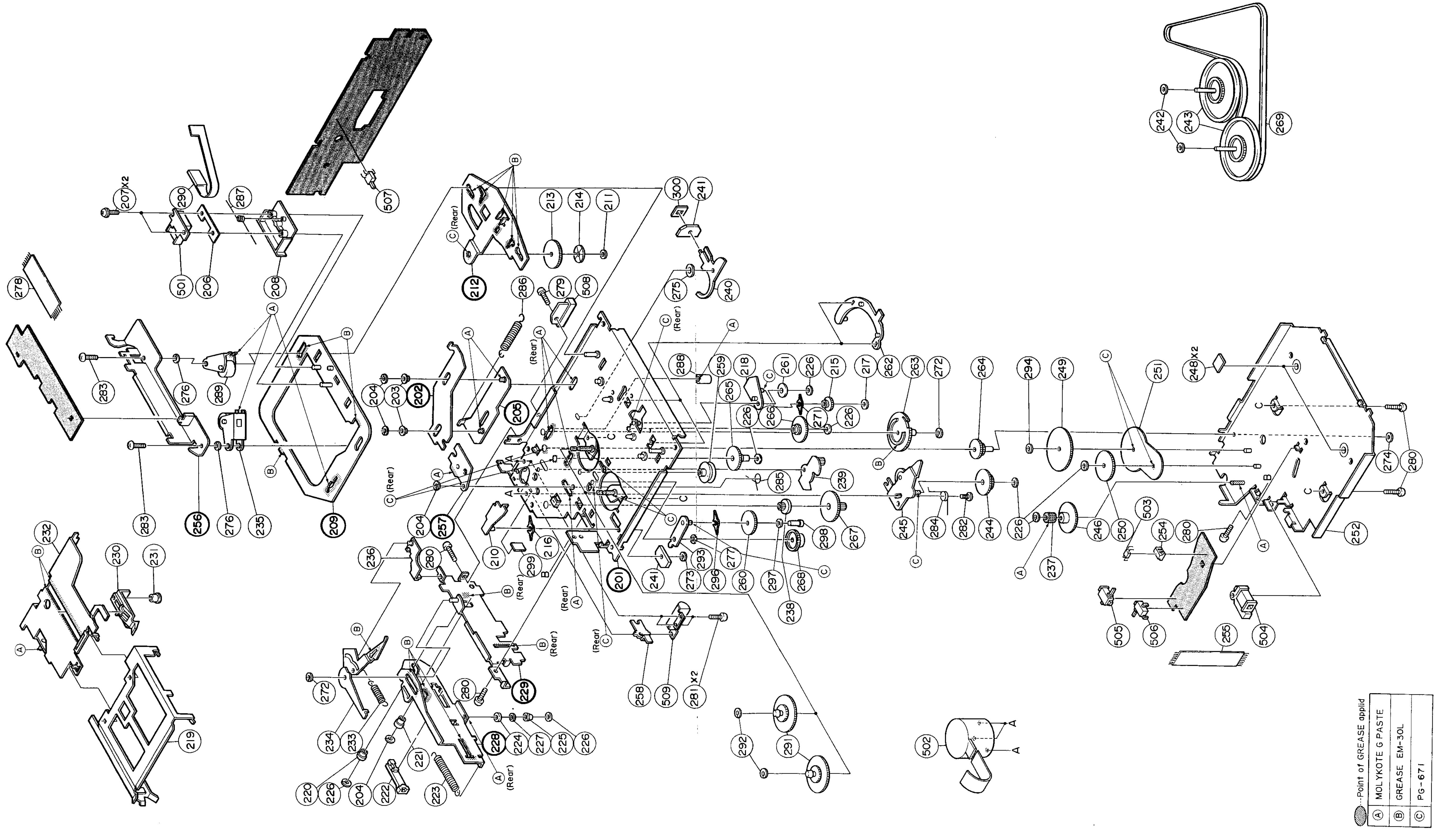

Adjustment screw
Fixing screw
Minimum
Maximum
AI-500 gauge
(The gauge must be inserted smoothly.)

The nosepiece of the gauge must be between the minimum and maximum positions.

Figure 25

Exploded View (GR75E Series) (1/4)

- **For GR75E010/01A/020 Models**


207 X2
290
287
501
206
208
507
278
283
276
289
235
256
209
212
213
214
211
300
241
286
279
508
275
240
202
203
204
205
257
288
259
218
261
226
215
217
262
263
272
264
294
249
251
248 X2
242
243
269
265
266
271
210
299
216
201
285
239
245
284
282
244
246
250
503
254
280
252
274
237
232
230
231
219
236
229
228
224
227
225
234
233
220
221
222
223
241
273
296
277
260
297
298
267
238
268
258
509
281 X2
292
291
502
505
506
255
504
(Rear)
A
B
C
···Point of GREASE applied
Ⓐ MOLYKOTE G PASTE
Ⓑ GREASE EM-30L
Ⓒ PG-671

Cassette Deck Assembly Parts List (GR75E Series) (1/4)

Note : The parts without parts list are not supplied.

Symbol No.		IN-dex	Part No.	Description
	203	3-C	43A11072W01	Roller, Sub Head
	204		04B41345P01	Washer, Lock(M1.2)
	206	2-B	41A31756W01	Spring, Head
	207	2-B	03S40019G03	Screw, F-Locks(M2x4)
	208	2-B	43B12545W01	Tape, Guide
	210	4-C	01A10206W01	Assy., Riv Lever R/F Sol
	211	2-D	04B41345P29	Washer, Lock(M2.6)
	213	2-D	44A10295W01	Gear, Sensor
	214	2-D	14A10681W01	Reflector
	215	3-E	44A30480W01	Gear, Planet
	216	3-E	41A10097W02	Spring, Clutch
	217	3-E	04B41345P35	Washer, Lock(M1.7)
	218	3-E	01A30824W01	Assy., Riv Lever Reverse
●	219	4-B	07B40283W01	Holder, Cassette
■	219	4-B	07B40283W01	Holder, Cassette
▲	219	4-B	07B10074W01	Holder, Cassette
	220	5-B	43A12583W01	Roller, Eject
	221	5-C	43A63281F01	Roller, Plate Base
	222	5-C	44A82206F01	Rack
	223	5-C	41B10386W03	Spring, GR(Rack)
	224	4-C	43A10121W01	Roller, Eject A
	225	4-D	43A10360W01	Roller, Eject B
	226		04B41345P11	Washer, Lock(M1.2)
	227	4-D	43A12377W01	Roller, Eject C
	230	4-A	45B10376W01	Slider
	231	4-B	47A63278F01	Shaft, Slider
	232	4-A	01A10212W01	Assy.,Riv Plate Base
	233	4-C	41B10386W01	Spring, Eject Arm
	234	4-B	01A10148W01	Assy., Riv Eject Arm A
	235	3-B	01B30863W02	Assy., Pinch Roller
	236	4-C	45A10087W01	Lever Pack In SW
	237	4-F	44A12975W01	Pinion, Eject
	238	4-E	44A13617W01	Gear, Motor Idler(B)
	239	3-E	01A10201W02	Assy., Riv Lever Pause
	240	2-D	45A40725W01	Lever, Play Sol
	241		76T10374W01	Chip
	242	1-G	04S40075G05	Washer Polyslider(M2.1)
	243	1-G	01A10368W01	Assy., Flywheel
	244	3-F	44A10141W01	Gear, Eject Idler
	245	3-E	01A10205W02	Assy., Riv Lever Clutch A
	246	3-F	44A10145W01	Gear, Eject
	248	3-G	43A41656W01	Spacer, UHMW
	249	3-F	44A11063W01	Gear, Bottom A
	250	3-F	44A11064W01	Gear, Bottom B
	251	3-G	34A11122W02	Washer, GR
	252	3-H	01A10210W02	Assy., Riv. Cover Bottom
	254	3-G	15B11065W01	Guide, Photo
	255	4-G	30T15126W01	Wire, PC Sensor(7P)
	258	4-D	45A10101W01	Lever, Eject Sol
	259	3-D	49A10131W01	Pulley, Idler
	260	4-E	44A10133W01	Gear, Take Up
	261	3-E	44A10134W01	Gear, Sun
	262	3-E	44B10135W01	Gear, Fix
	263	3-E	44B30484W01	Gear, Pause
	264	3-F	44A10137W01	Gear, Pause Idler A
	265	3-D	44A10379W01	Gear, Pause Idler B
	266	3-E	44A10138W01	Gear, Reverse Idler
	267	3-E	44A10139W01	Gear, Motor Idler
	268	4-E	44A11062W01	Gear, Reel Idler
	269	1-G	42A10380W01	Belt, GR
	271	3-E	41A30475W01	Spring, Clutch
	272		04B41345P15	Washer, Lock(M1.2)
	273	4-D	04B41345P02	Washer, Lock(M1.7)
	274	3-H	04B41345P17	Washer, Lock(M1)
	275	2-D	04B41345P30	Washer, Lock(M3.1)
	276		04B41345P32	Washer, Lock(M3.1)
	277	4-E	04B41345P37	Washer, Lock(M2.1)
	278	2-A	30T15126W02	Wire, PC Joint 7P
	279	2-D	03S44205G78	Screw, Pan(M2x6)
	280		03S44205G30	Screw, Pan(M2.6x4)
	281	4-D	03S72235F53	Screw, Pan(M2x3.3)
	282	3-F	03A12132W02	Screw, Eject Clutch(M2x2.3)
	283		03S43997P64	Screw, Pan(M1.7x3)
	284	3-F	41A10384W01	Spring, Eject Clutch
	285	3-E	41A10385W01	Spring, Cas Push
	286	2-C	41B10386W02	Spring, Sub Head
	287	2-B	41A10387W01	Spring, Pinch Roller
	288	3-D	43A12719W01	Roller, Pause
	289	3-B	01B30863W01	Assy., Pinch Roller
	290	2-B	84T25151W01	Head P.C. Board

Notes:● ; For GR75E020 model only ■ ; For GR75E010 model only
▲ ; For GR75E01A model only Others ; Common

Symbol No.		IN-dex	Part No.	Description
	291	4-E	01T35403W01	Assy., Reel
	292	4-E	04B41345P12	Washer, Lock(M1.7)
	293	4-D	01A30161W01	Assy., Riv Lever Take Up
	294	3-F	04B41345P34	Washer Lock(M1.2)
	296	4-D	41A40910W01	Spring, Clutch
	297	4-E	43A41543W01	Washer, Som(M1.2)
	298	3-E	47A41458W01	Pin, Take Up
	299	4-C	43A40388W01	Spacer, Polyslider
	300	2-D	43A41744W01	Lock, Solenoid
Miscellaneous				
●	501	2-B	88T15971W01	Head
■	501	2-B	88T10373W01	Head
▲	501	2-B	88T10373W01	Head
	502	4-E	01V11500W64	Assy., Motor(Main, 13.2V-80mA)
	503	3-G	51T15144W01	Sensor, Photo
	504	4-G	01T10371W01	R/F Sol. Assy.
	505	4-F	40T15382W01	SW., Detector(Pack Down)
	506	4-G	40T15382W01	SW., Detector(Metal)
	507	2-C	40T15222W01	SW., Detector (Pack In)
	508	2-D	01T15249W01	Assy., Play Solenoid
	509	4-D	01T10369W02	Assy., Eject Solenoid

Notes:● ; For GR75E020 model only ■ ; For GR75E010 model only
▲ ; For GR75E01A model only Others ; Common

Exploded View (GR75L Series) (2/4)

- **For GR75L020/02A Models**

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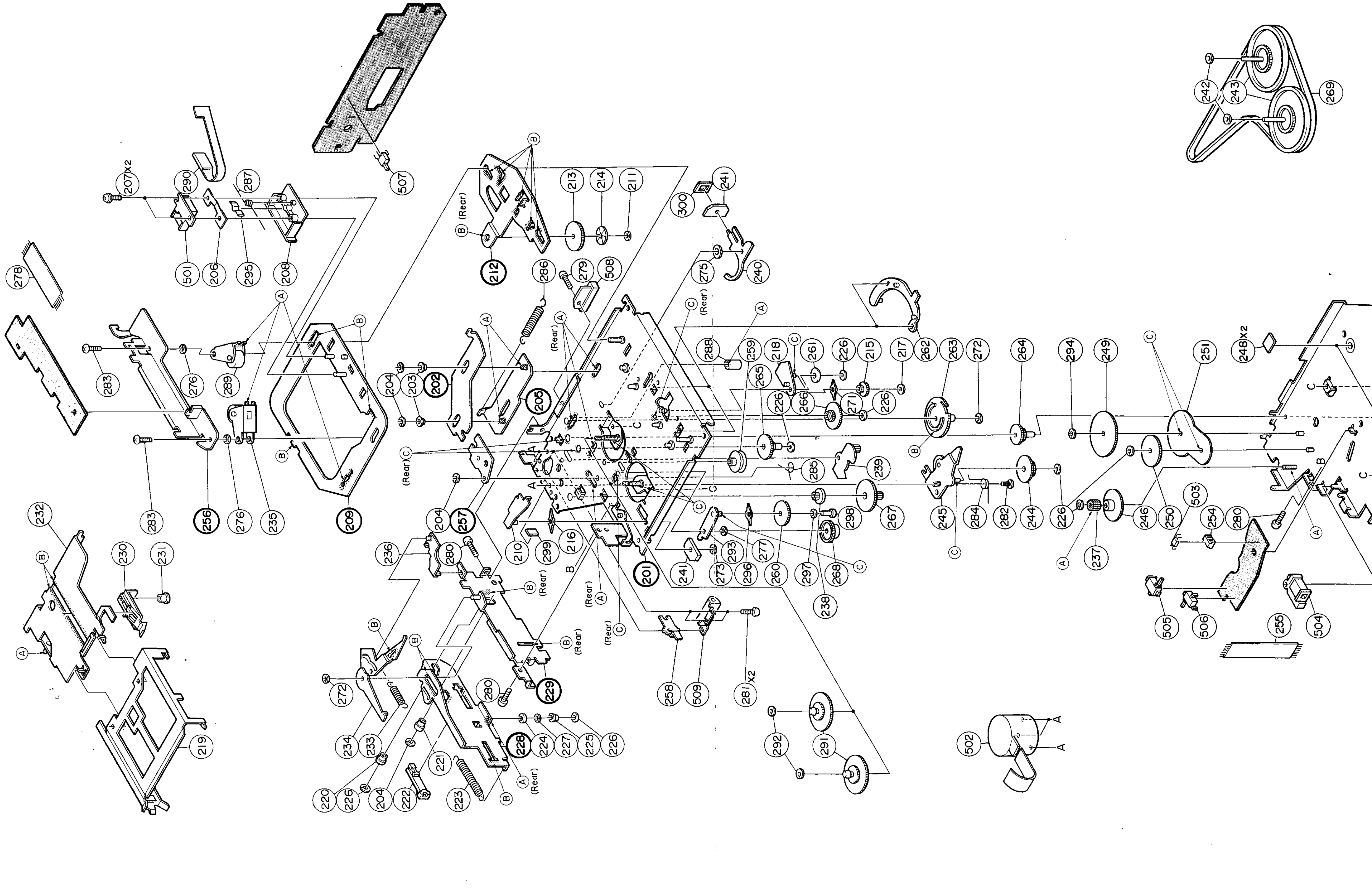
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▨	---Point of GREASE applid
Ⓐ	MOLYKOTE G PASTE
Ⓑ	GREASE EM-30L
Ⓒ	PG-671

Cassette Deck Assembly Parts List (GR75L Series) (2/4)

Note : The parts without parts list are not supplied.

Symbol No.	IN-dex	Part No.	Description
203	3-C	43A11072W01	Roll, Sub Head
204		04B41345P01	Washer, Lock(M1.2)
206	2-B	41A31756W01	Spring, Head
207	2-B	03S40019G03	Screw, F-Locks(M2x4)
208	2-B	43B12545W01	Tape, Guide
210	4-C	01A10206W01	Assy., Riv Lever R/F Sol.
211	2-D	04B41345P29	Washer, Lock(M2.6)
213	2-D	44A10295W01	Gear, Sensor
214	2-D	14A10681W01	Reflector
215	3-E	44A30480W01	Gear, Planet
216	3-E	41A10097W02	Spring, Clutch
217	3-E	04B41345P35	Washer, Lock(M1.7)
218	3-E	01A30824W01	Assy., Riv Lever Reverse
219	4-B	07B40283W01	Holder, Cassette
220	5-B	43A12583W01	Roller, Eject
221	5-C	43A63281F01	Roller, Plate Base
222	5-C	44A82206F01	Rack
223	5-C	41B10386W03	Spring, GR(Rack)
224	4-C	43A10121W01	Roller, Eject(A)
225	4-D	43A10360W01	Roller, Eject(B)
226		04B41345P11	Washer, Lock(M1.2)
227	4-D	43A12377W01	Roller, Eject(C)
230	4-A	45B10376W01	Slider
231	4-B	47A63278F01	Shaft, Slider
232	4-A	01A10212W01	Assy., Riv Plate Base
233	4-C	41B10386W01	Spring, Eject Arm
234	4-B	01A21754W01	Assy., Riv Eject Arm(A)
235	3-B	01B30863W02	Assy., Pinch Roller
236	4-C	45A10087W01	Lever, Pack In SW.
237	4-F	44A20314W01	Pinion, Eject
238	4-E	44A13617W01	Gear, Motor Idler(B)
239	3-E	01A10201W02	Assy., Riv Lever Pause
240	2-E	45A40725W01	Lever, Play Sol
241		76T10374W01	Chip
242	1-G	04S40075G05	Washer, Polyslider(M2.1)
243	1-G	01A10368W01	Assy., Flywheel
244	3-F	44A10141W01	Gear, Eject Idler
245	3-E	01A10205W02	Assy., Riv Lever Clutch(A)
246	3-F	44A10145W01	Gear, Eject
248	3-G	43A41656W01	Spacer, UHMW
249	3-F	44A11063W01	Gear, Bottom(A)
250	3-F	44A11064W01	Gear, Bottom(B)
251	3-G	34A11122W02	Washer, GR
252	3-H	01A10210W02	Assy., Riv. Cover Bottom
254	3-G	15B11065W01	Guide, Photo
255	4-G	30T15126W01	Wire, PC Sensor(7P)
258	4-D	45A10101W01	Lever, Eject Sol.
259	3-D	49A10131W01	Pulley, Idler
260	4-E	44A10133W01	Gear, Take Up
261	3-E	44A10134W01	Gear, Sun
262	3-E	44B10135W01	Gear, Fix
263	3-E	44B21670W01	Gear, Pause
264	3-F	44A10137W01	Gear, Pause Idler(A)
265	3-D	44A10379W01	Gear, Pause Idler(B)
266	3-E	44A10138W01	Gear, Reverse Idler
267	3-E	44A10139W01	Gear, Motor Idler
268	4-E	44A11062W01	Gear, Reel Idler
269	1-G	42A10380W01	Belt, GR
271	3-E	41A30475W01	Spring, Clutch
272	3-F	04B41345P15	Washer, Lock(M1.2)
273	4-D	04B41345P02	Washer, Lock(M1.7)
274	3-H	04B41345P17	Washer, Lock(M1)
275	2-D	04B41345P30	Washer, Lock(M3.1)
276		04B41345P32	Washer, Lock(M3.1)
277	4-E	04B41345P37	Washer, Lock(M2.1)
278	2-A	30T15126W02	Wire, PC Joint 7P
279	2-D	03S44205G78	Screw, Pan(M2x6)
280		03S44205G30	Screw, Pan(M2.6x4)
281	4-D	03S72235F53	Screw, Pan(M2x3.3)
282	3-F	03A12132W02	Screw, Eject Clutch(M2x2.3)
283		03S43997P64	Screw, Pan(M1.7x3)
284	3-F	41A10384W01	Spring, Eject Clutch
285	3-E	41A10385W01	Spring, Cas. Push
286	2-C	41B10386W02	Spring, Sub Head
287	2-B	41A10387W01	Spring, Pinch Roller
288	3-D	43A12719W01	Roller, Pause
289	3-B	01B30863W01	Assy., Pinch Roller
290	2-B	84T25151W01	Head P.C. Board
291	4-E	01T35403W02	Assy., Reel
292	4-E	04B41345P12	Washer, Lock(M1.7)

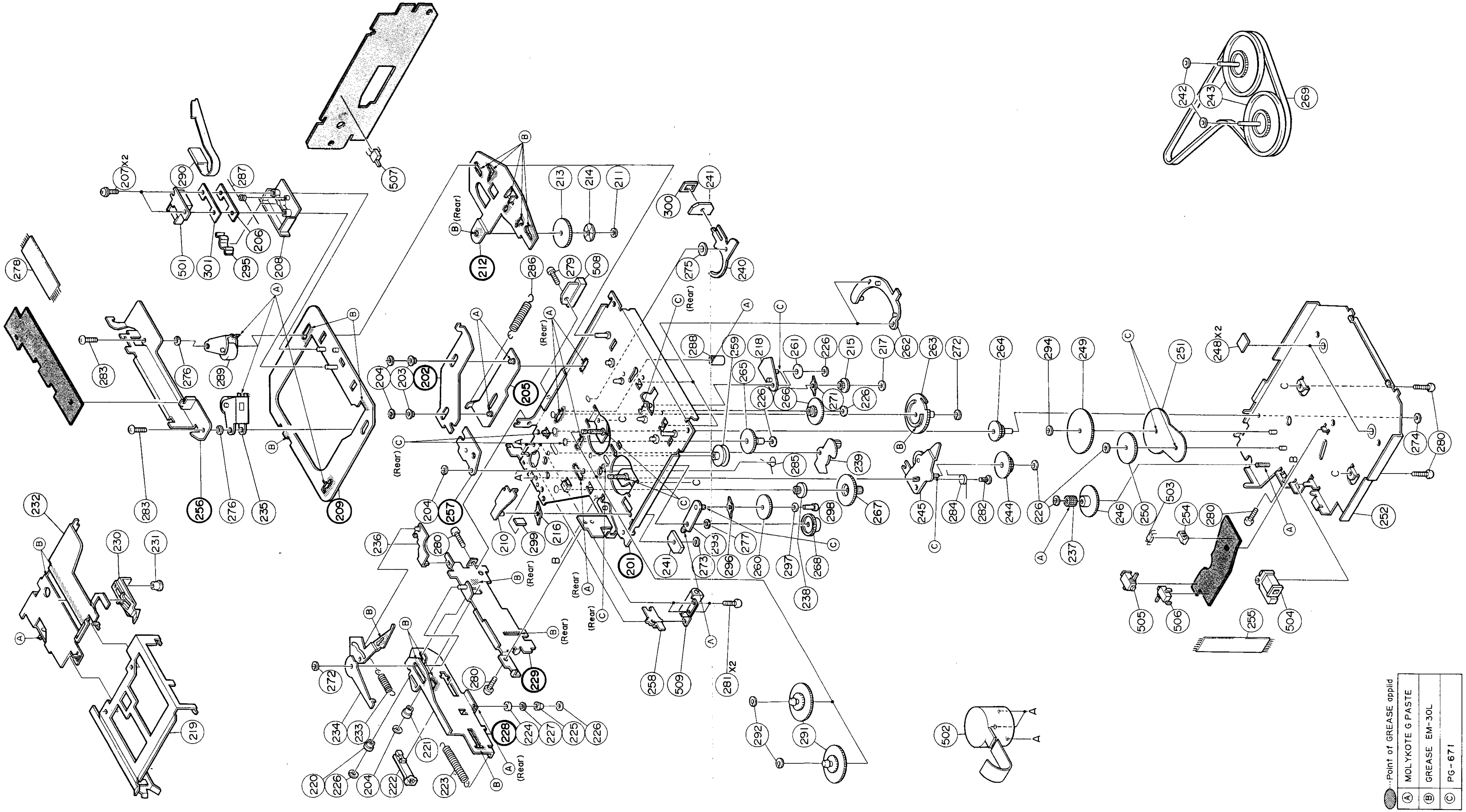
Notes : ◆ ; For GR75L020 model only ○ ; For GR75L02A model only
Others ; Common

Symbol No.	IN-dex	Part No.	Description
293	4-D	01A30161W01	Assy., Riv Lever Take Up
294	3-F	04B41345P34	Washer, Lock(M1.2)
295	2-B	26A20537W01	Shield, Plate
296	4-D	41A40910W01	Spring, Clutch
297	4-E	43A41543W01	Washer, Som(M1.2)
298	3-E	47A41458W01	Pin, Take Up
299	3-D	43A40388W01	Spacer, Polyslider
300	2-D	43A41744W01	Lock, Solenoid
Miscellaneous			
501	2-B	88T15971W01	Head
◆ 502	4-E	01V23900W60	Assy., Motor(13.2V-105mA)
○ 502	4-E	01V43400W37	Assy., Motor(13.2V-88mA)
503	3-G	51T15144W01	Sensor, Photo
504	4-G	01T10371W01	R/F Sol. Assy
505	4-F	40T15382W01	SW., Detector (Pack Down)
506	4-G	40T15382W01	SW., Detector (Metal)
507	2-C	40T15222W01	SW., Detector (Pack In)
508	2-D	01T15249W01	Assy., Play Solenoid
509	4-D	01T10369W02	Assy., Eject Solenoid

Notes : ◆ ; For GR75L020 model only ○ ; For GR75L02A model only
Others ; Common

Exploded View (GR-Y Series) (3/4)

- **For GR75L02Y/52Y Model**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▨	--Point of GREASE applid
Ⓐ	MOLYKOTE G PASTE
Ⓑ	GREASE EM-30L
Ⓒ	PG-671

Cassette Deck Assembly Parts List (GR-Y Series) (3/4)

Note : The parts without parts list are not supplied.

Symbol No.	IN-dex	Part No.	Description
203	3-C	43A11072W01	Roll, Sub Head
204		04B41345P01	Washer, Lock(M1.2)
206	2-B	41A31756W01	Spring, Head
207	2-B	03S40019G03	Screw, F-Locks(M2x4)
208	2-B	43B12545W01	Tape, Guide
210	4-C	01A10206W01	Assy., Riv Lever R/F Sol.
211	2-D	04B41345P29	Washer, Lock(M2.6)
213	2-D	44A10295W01	Gear, Sensor
214	2-D	14A10681W01	Reflector
215	3-E	44A30480W01	Gear, Planet
216		41A10097W02	Spring, Clutch
217	3-E	04B41345P35	Washer, Lock(M1.7)
218	3-E	01A30824W01	Assy., Riv Lever Reverse
219	4-B	07B40283W01	Holder, Cassette
220	5-B	43A12583W01	Roller, Eject
221	5-C	43A63281F01	Roller, Plate Base
222	5-C	44A82206F01	Rack
223	5-C	41B10386W03	Spring, GR(Rack)
224	4-C	43A10121W01	Roller, Eject(A)
225	4-D	43A10360W01	Roller, Eject(B)
226		04B41345P11	Washer, Lock(M1.2)
227	4-D	43A12377W01	Roller, Eject(C)
230	4-A	45B10376W01	Slider
231	4-B	47A63278F01	Shaft, Slider
232	4-A	01A10212W01	Assy., Riv Plate Base
233	4-C	41B10386W01	Spring, Eject Arm
234	4-B	01A21754W01	Assy., Riv Eject Arm(A)
235	3-B	01B30863W02	Assy., Pinch Roller
236	4-C	45A10087W01	Lever, Pack In SW.
237	4-F	44A20314W01	Pinion, Eject
238	4-E	44A13617W01	Gear, Motor Idler(B)
239	3-E	01A10201W02	Assy., Riv Lever Pause
240	2-D	45A40725W01	Lever, Play Sol.
241		76T10374W01	Chip
242	1-G	04S40075G05	Washer, Polyslider(M2.1)
243	1-G	01A10368W01	Assy., Flywheel
244	3-F	44A10141W01	Gear, Eject Idler
245	3-E	01A10205W02	Assy., Riv Lever Clutch(A)
246	3-F	44A10145W01	Gear, Eject
248	3-G	43A41656W01	Spacer, UHMW
249	3-F	44A11063W01	Gear, Bottom(A)
250	3-F	44A11064W01	Gear, Bottom(B)
251	3-G	34A11122W02	Washer, GR
252	3-H	01A10210W02	Assy., Riv. Cover Bottom
254	3-G	15B11065W01	Guide, Photo
255	4-G	30T15126W01	Wire, PC Sensor(7P)
258	4-D	45A10101W01	Lever, Eject Sol.
259	3-D	49A10131W01	Pulley, Idler
260	4-E	44A10133W01	Gear, Take Up
261	3-E	44A10134W01	Gear, Sun
262	3-E	44B10135W01	Gear, Fix
263	3-E	44B21670W01	Gear, Pause
264	3-F	44A10137W01	Gear, Pause Idler(A)
265	3-D	44A10379W01	Gear, Pause Idler(B)
266	3-E	44A10138W01	Gear, Reverse Idler
267	3-E	44A10139W01	Gear, Motor Idler
268	4-E	44A11062W01	Gear, Reel Idler
269	1-G	42A10380W01	Belt, GR
271	3-E	41A30475W01	Spring, Clutch
272	3-F	04B41345P15	Washer, Lock(M1.2)
273		04B41345P02	Washer, Lock(M1.7)
274	3-H	04B41345P17	Washer, Lock(M1)
275	2-D	04B41345P30	Washer, Lock(M3.1)
276	3-B	04B41345P32	Washer, Lock(M3.1)
277	4-E	04B41345P37	Washer, Lock(M2.1)
278	2-A	30T15126W02	Wire, PC Joint 7P
279	2-D	03S44205G78	Screw, Pan(M2x6)
280		03S44205G30	Screw, Pan(M2.6x4)
281	4-D	03S72235F53	Screw, Pan(M2x3.3)
282	3-F	03A12132W02	Screw, Eject Clutch(M2x2.3)
283		03S43997P64	Screw, Pan(M1.7x3)
284	3-F	41A10384W01	Spring, Eject Clutch
285	3-E	41A10385W01	Spring, Cas. Push
286	2-C	41B10386W02	Spring, Sub Head
287	2-B	41A10387W01	Spring, Pinch Roller
288	3-D	43A12719W01	Roller, Pause
289	3-B	01B30863W01	Assy., Pinch Roller
290	2-B	84T35271W01	Head P.C. Board
291	4-E	01T35403W02	Assy., Reel
292	4-E	04B41345P12	Washer, Lock(M1.7)

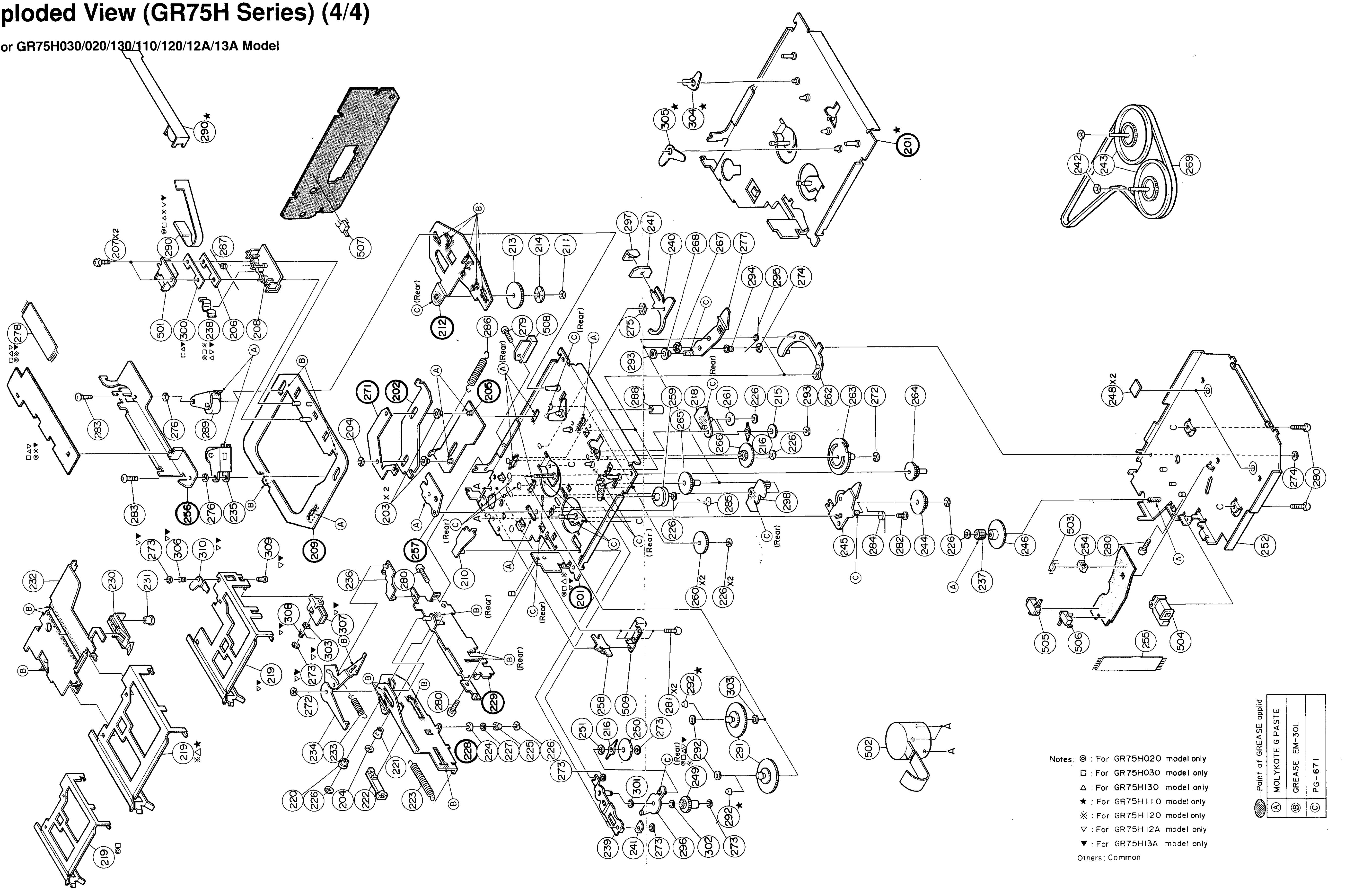
Notes:☆ ; For GR75L02Y model only ◇ ; For GR75L52Y model only
Others ; Common

Symbol No.	IN-dex	Part No.	Description
293	4-D	01A30161W01	Assy., Riv Lever Take Up
294	3-F	04B41345P34	Washer, Lock(M1.2)
295	2-B	26A20537W01	Shield, Plate
296	4-D	41A40910W01	Spring, Clutch
297	4-E	43A41543W01	Washer, Som(M1.2)
298	3-E	47A41458W01	Pin, Take Up
299	3-C	43A40388W01	Spacer, Polyslider
300	2-D	43A41744W01	Lock, Solenoid
301	2-B	41A41416W01	Spring, Head
Miscellaneous			
501	2-B	88T15971W01	Head
☆ 502	4-E	01V23900W60	Assy., Motor(13.2V-105mA)
◇ 502	4-E	01V44200W73	Assy., Motor(13.2V-80mA)
503	3-G	51T15144W01	Sensor, Photo
504	4-G	01T10371W01	R/F Sol. Assy
505	4-F	40T15382W01	SW., Detector (Pack Down)
506	4-G	40T15382W01	SW., Detector (Metal)
507	2-C	40T15222W01	SW., Detector (Pack In)
508	2-D	01T15249W01	Assy., Play Solenoid
509	4-D	01T10369W02	Assy., Eject Solenoid

Notes:☆ ; For GR75L02Y model only ◇ ; For GR75L52Y model only
Others ; Common

Exploded View (GR75H Series) (4/4)

- **For GR75H030/020/130/110/120/12A/13A Model**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Notes: ◎ : For GR75H020 model only
□ : For GR75H030 model only
△ : For GR75H130 model only
★ : For GR75H110 model only
✕ : For GR75H120 model only
▽ : For GR75H12A model only
▼ : For GR75H13A model only
Others : Common

▨ ...Point of GREASE applid

Ⓐ	MOLYKOTE G PASTE
Ⓑ	GREASE EM-30L
Ⓒ	PG-671

Cassette Deck Assembly Parts List (GR75H Series) (4/4)

Note : The parts vithout parts list are not supplied.

Symbol	No.	IN-dex	Part No.	Description
◎	203	3-C	43A51119W01	Roller, Sub Head
□	203	3-C	43A51119W01	Roller, Sub Head
※	203	3-C	43A31453W01	Roller, Sub Head
△	203	3-C	43A31453W01	Roller, Sub Head
▽	203	3-C	43A31453W01	Roller, Sub Head
▼	203	3-C	43A31453W01	Roller, Sub Head
★	203	3-C	43A31453W01	Roller, Sub Head
	204		04B41345P01	Washer, Lock(M1.2)
	206	2-B	41A31756W01	Spring, Head
	207	2-A	03A38021W01	Screw, Flange(M2x4)
	208	2-B	43B12545W01	Tape, Guide
	210	4-C	01A30462W01	Assy., Riv Lever R/F Sol
	211	2-D	04B41345P29	Washer, Lock(M2.6)
	213	2-D	44A10295W01	Gear, Sensor
	214	2-D	14A58039W01	Reflector
	215	3-E	44A30480W01	Gear, Planet
	216		41A30475W01	Spring, Clutch
	218	3-E	01A30824W01	Assy., Riv Lever Reverse
◎	219	5-A	07B40283W01	Holder, Cassette
□	219	5-A	07B40283W01	Holder, Cassette
△	219	5-B	07B40012W01	Holder, Cassette
※	219	5-B	07B40012W01	Holder, Cassette
★	219	5-B	07B40012W01	Holder, Cassette
▽	219	4-B	01A51158W01	Assy., Riv Cassete Holder
▼	219	4-B	01A51158W01	Assy., Riv Cassete Holder
	220	5-B	43A12583W01	Roller, Eject
	221	5-C	43A63281F01	Roller, Plate Base
	222	5-C	44A82206F01	Rack
◎	223	5-C	41B10386W03	Spring, GR(Rack)
□	223	5-C	41B10386W03	Spring, GR(Rack)
△	223	5-C	41B10386W04	Spring, GR(Rack)
★	223	5-C	41B10386W04	Spring, GR(Rack)
※	223	5-C	41B10386W04	Spring, GR(Rack)
▽	223	5-C	41B10386W04	Spring, GR(Rack)
▼	223	5-C	41B10386W04	Spring, GR(Rack)
	224	5-C	43A10121W01	Roller, Eject A
	225	5-D	43A10360W01	Roller, Eject B
	226		04B41345P11	Washer, Lock(M1.2)
	227	5-D	43A12377W01	Roller, Eject C
	230	4-A	45B10376W01	Slider
	231	4-B	47A63278F01	Shaft, Slider
◎	232	4-A	01A10212W01	Assy., Riv Plate Base
□	232	4-A	01A10212W01	Assy., Riv Plate Base
△	232	4-A	01A40024W01	Assy., Riv Plate Base
★	232	4-A	01A40024W01	Assy., Riv Plate Base

Symbol	No.	IN-dex	Part No.	Description
※	232	4-A	01A40024W01	Assy., Riv Plate Base
▽	232	4-A	01A40024W01	Assy., Riv Plate Base
▼	232	4-A	01A40024W01	Assy., Riv Plate Base
◎	233	5-C	41B10386W01	Spring, Eject Arm
□	233	5-C	41B10386W01	Spring, Eject Arm
△	233	5-C	41B63283F11	Spring
★	233	5-C	41B63283F11	Spring
※	233	5-C	41B63283F11	Spring
▽	233	5-C	41B63283F11	Spring
▼	233	5-C	41B63283F11	Spring
◎	234	5-C	01A30883W01	Assy., Riv Eject Arm B
□	234	5-C	01A30883W01	Assy., Riv Eject Arm B
△	234	5-C	01A40021W01	Assy., Riv Eject Arm D
★	234	5-C	01A40021W01	Assy., Riv Eject Arm D
※	234	5-C	01A40021W01	Assy., Riv Eject Arm D
▽	234	5-C	01A40021W01	Assy., Riv Eject Arm D
▼	234	5-C	01A40021W01	Assy., Riv Eject Arm D
	235	3-B	01B30863W02	Assy., Pinch Roller
	236	4-C	45A10087W01	Lever Pack In SW
	237	4-F	44A20314W01	Pinion, Eject
◎	238	2-B	26A20537W01	Shield, plate
□	238	2-B	26A20537W01	Shield, plate
※	238	2-B	26A20537W01	Shield, plate
△	238	2-B	26A20537W01	Shield, plate
▽	238	2-B	26A20537W01	Shield, plate
▼	238	2-B	26A20537W01	Shield, plate
	239	5-D	01A40881W01	Assy., Riv RF Link
	240	2-D	45A40725W01	Lever, Play Sol.
	241		76T10374W01	Chip
◎	242	1-G	04S40075G05	Washer, Polyslider(M2.1)
□	242	1-G	04S40075G05	Washer, Polyslider(M2.1)
※	242	1-G	04S40075G05	Washer, Polyslider(M2.1)
△	242	1-G	04S40075G05	Washer, Polyslider(M2.1)
▽	242	1-G	04S40075G05	Washer, Polyslider(M2.1)
▼	242	1-G	04S40075G05	Washer, Polyslider(M2.1)
★	242	1-G	04T55449W01	Washer, Teflon(M2.1)
◎	243	1-G	01A30488W01	Assy., Flywheel
□	243	1-G	01A30488W01	Assy., Flywheel
※	243	1-G	01A30488W01	Assy., Flywheel
△	243	1-G	01A30488W01	Assy., Flywheel
▽	243	1-G	01A30488W01	Assy., Flywheel
▼	243	1-G	01A30488W01	Assy., Flywheel
★	243	1-G	01A50658W01	Assy., Flywheel
	244	3-F	44A10141W01	Gear, Eject Idler
	245	3-E	01A10205W02	Assy., Riv Lever Clutch A

Notes:◎ ; For GR75H020 model only　□ ; For GR75H030 model only　★ ; For GR75H110 model only　※ ; For GR75H120 model only
▽ ; For GR75H12A model only　△ ; For GR75H130 model only　▼ ; For GR75H13A model only　Others ; Common

Note : The parts without parts list are not supplied.

Symbol No.		IN-dex	Part No.	Description
	246	3-F	44A10145W01	Gear, Eject
	248	3-G	43A41656W01	Spacer, UHMW
	249	5-E	44A30481W01	Gear, RF Idler
	250	4-D	44A30483W01	Gear, RF
	251	4-D	04S40075G58	Washer, Polyslider(M2.1)
	252	3-H	01A30463W01	Assy., Riv. Cover Bottom
	254	3-G	15B11065W01	Guide, Photo
	255	4-G	30T15126W01	Wire, PC Sensor(7P)
	258	4-D	45A10101W01	Lever, Eject Sol
	259	3-D	49A30476W01	Pulley, Idler
	260	4-E	44A30482W01	Gear, Take Up
	261	3-E	44A30478W01	Gear, Sun
◎	262	3-E	44B10135W01	Gear, Fix
□	262	3-E	44B10135W01	Gear, Fix
★	262	3-E	44B10135W01	Gear, Fix
※	262	3-E	44B10135W01	Gear, Fix
△	262	3-E	44B10135W01	Gear, Fix
▼	262	3-E	44B10135W01	Gear, Fix
▽	262	3-E	44B10135W02	Gear, Fix
	263	3-E	44B30484W01	Gear, Pause
	264	3-F	44A10137W01	Gear, Pause Idler A
	265	3-E	44A30486W01	Gear, Pause Idler B
	266	3-E	44A30479W01	Gear, Reverse Idler
	267	2-E	44A30485W01	Gear, Motor Idler
	268	2-E	44A30487W01	Gear, Motor Clutch
	269	1-G	42A31850W01	Belt, GR
	272		04B41345P15	Washer, Lock(M1.2)
	273		04B41345P02	Washer, Lock(M1.7)
	274		04B41345P17	Washer, Lock(M1)
	275	2-D	04B41345P30	Washer, Lock(M3.1)
	276		04B41345P32	Washer, Lock(M3.1)
	277	2-E	01A30464W01	Assy., Riv Play Clutch
◎	278	2-A	30T15126W02	Wire, PC Joint 7P
□	278	2-A	30T15126W02	Wire, PC Joint 7P
※	278	2-A	30T15126W02	Wire, PC Joint 7P
△	278	2-A	30T15126W02	Wire, PC Joint 7P
▽	278	2-A	30T15126W02	Wire, PC Joint 7P
▼	278	2-A	30T15126W02	Wire, PC Joint 7P
	279	2-D	03S44205G78	Screw, Pan(M2x6)
	280		03S44205G30	Screw, Pan(M2.6x4)
	281	4-D	03S72235F53	Screw, Pan(M2x3.3)
	282	3-F	03A12132W02	Screw, Eject Clutch(M2x2.3)
	283		03S43997P64	Screw, Pan(M1.7x3)
	284	3-F	41A10384W01	Spring, Eject Clutch
	285	3-E	41A10385W01	Spring, Cassette Push
	286	2-C	41B10386W02	Spring, Sub Head
	287	2-B	41A10387W01	Spring, Pinch Roller
	288	3-D	43A12719W01	Roller, Pause
	289	3-B	01B30863W01	Assy., Pinch Roller
◎	290	2-B	84T25151W01	Head P.C. Board
※	290	2-B	84T25151W01	Head P.C. Board
▽	290	2-B	84T25151W01	Head P.C. Board
□	290	2-B	84T35271W01	Head P.C. Board
△	290	2-B	84T35271W01	Head P.C. Board
▼	290	2-B	84T35271W01	Head P.C. Board
★	290	1-B	84T45462W01	Head P.C. Board
◎	291	5-E	01T35403W01	Assy., Reel
□	291	5-E	01T35403W01	Assy., Reel
※	291	5-E	01T35403W01	Assy., Reel
△	291	5-E	01T35403W01	Assy., Reel
▽	291	5-E	01T35403W01	Assy., Reel
▼	291	5-E	01T35403W01	Assy., Reel
★	291	5-E	01T45062W01	Assy., Reel
◎	292	5-E	04B41345P12	Washer, Lock(M1.7)
□	292	5-E	04B41345P12	Washer, Lock(M1.7)
※	292	5-E	04B41345P12	Washer, Lock(M1.7)
△	292	5-E	04B41345P12	Washer, Lock(M1.7)
▽	292	5-E	04B41345P12	Washer, Lock(M1.7)
▼	292	5-E	04B41345P12	Washer, Lock(M1.7)
★	292		49A40718W01	Reel, Cap
	293		04B41345P35	Washer, Lock(M1.7)
	294	2-E	43A30827W01	Spacer, Motor Idler
	295	2-E	41A30490W01	Spring, Play Clutch
	296	5-E	01A40882W01	Assy., Riv Lever RF
	297	2-D	43A41744W01	Lock, Solenoid
	298	3-E	01A10201W02	Assy, Riv Lever Pause
□	300	2-B	41A41416W01	Spring, Head
△	300	2-B	41A41416W01	Spring, Head
▼	300	2-B	41A41416W01	Spring, Head
	301	5-D	04S40075G63	Washer, Polyslider(M2.1)
	302	5-E	04S40075G62	Washer, Polyslider(M2.1)
	303		04S40075G05	Washer, Polyslider(M2.1)
★	304	1-E	01A50659W01	Assy., Riv Pinch Roller(N)
★	305	1-E	01A50660W01	Assy., Riv Pinch Roller(R)
▽	306	3-B	41A50970W01	Spring, Push Holder
▼	306	3-B	41A50970W01	Spring, Push Holder
▽	307	4-C	01A51160W01	Assy., Link Felt Guide
▼	307	4-C	01A51160W01	Assy., Link Felt Guide
▽	308	4-B	41A50969W01	Spring, Holder
▼	308	4-B	41A50969W01	Spring, Holder

Notes: ◎ ; For GR75H020 model only　□ ; For GR75H030 model only　★ ; For GR75H110 model only　※ ; For GR75H120 model only
▽ ; For GR75H12A model only　△ ; For GR75H130 model only　▼ ; For GR75H13A model only　Others ; Common

Note : The parts without parts list are not supplied.

Symbol No.		IN-dex	Part No.	Description
▽	309	3-B	46A50946W01	Stud, Holder Cassete
▼	309	3-B	46A50946W01	Stud, Holder Cassete
▽	310	3-B	01A51159W01	Assy., Riv Lever Push Holder
▼	310	3-B	01A51159W01	Assy., Riv Lever Push Holder
Miscellaneous				
◎	501	2-B	88T15971W02	Head
※	501	2-B	88T15971W02	Head
▽	501	2-B	88T15971W02	Head
□	501	2-B	88T35406W01	Head
△	501	2-B	88T35406W01	Head
▼	501	2-B	88T35406W01	Head
★	501	2-B	88T10373W01	Head
◎	502	5-F	01V41100W72	Assy., Motor(11.5v-85mA)
□	502	5-F	01V41100W72	Assy., Motor(11.5v-85mA)
△	502	5-F	01V41100W72	Assy., Motor(11.5v-85mA)
▼	502	5-F	01V41100W72	Assy., Motor(11.5v-85mA)
▽	502	5-F	01V51800W42	Assy., Motor(13.2V-105mA)
※	502	F-5	01V51800W42	Assy., Motor(13.2V-105mA)
★	502	F-5	01V53200W99	Assy., Motor(13.2V-105mA)
	503	3-G	51T15144W01	Sensor, Photo
	504	4-G	01T10371W01	R/F Sol. Assy.
	505	4-F	40T15382W01	SW., Detector(Pack Down)
	506	4-G	40T15382W01	SW., Detector(Metal)
	507	2-C	40T15222W01	SW., Detector(Pack In)
	508	2-D	01T15249W01	Assy., Play Solenoid
	509	4-D	01T10369W02	Assy., Eject Solenoid

Symbol No.		IN-dex	Part No.	Description

Notes:◎ ; For GR75H020 model only　□ ; For GR75H030 model only　★ ; For GR75H110 model only　※ ; For GR75H120 model only

▽ ; For GR75H12A model only　△ ; For GR75H130 model only　▼ ; For GR75H13A model only　Others ; Common

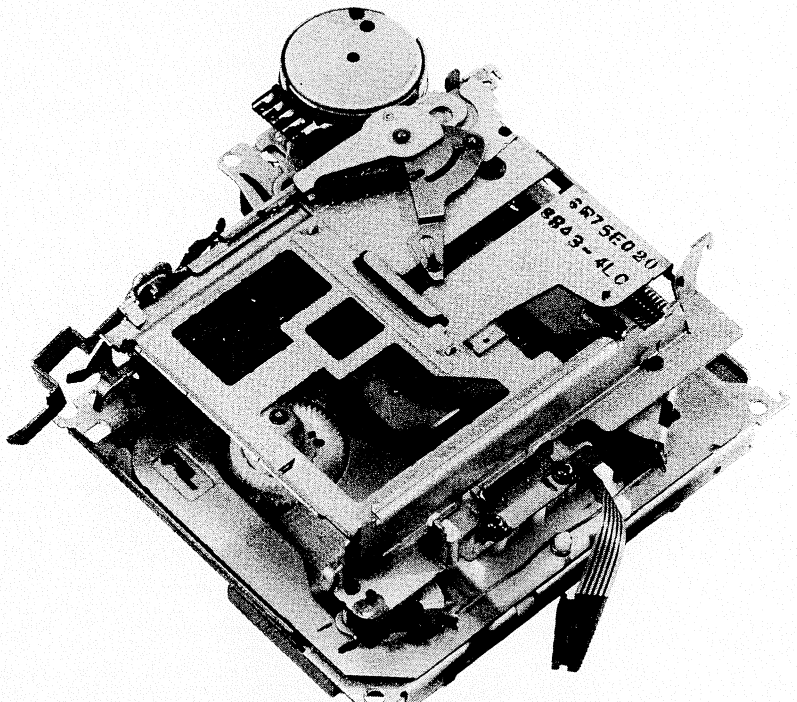
ALPINE®

SERVICE MANUAL

Cassette Deck Mechanism

ADDENDUM & REVISED (VII)

- This manual is described on GR75H12H only. The GR75H12H is developed from GR75H SERIES. For information that is not mentioned in this service manual, refer to the Service Manual • GR/GR-Y SERIES - ADDENDUM & REVISED (VI) (68P20504W07).
- 当マニュアルはGR75H12Hについてのみ記載してます。又、GR75Hシリーズがベースモデルとなってますので、相違部分のみを記載してあります。
詳細については、GR/GR-Yシリーズ (改訂・追補版 - VI) (68P20505W07)を参照願います。



GR/GR-Y SERIES

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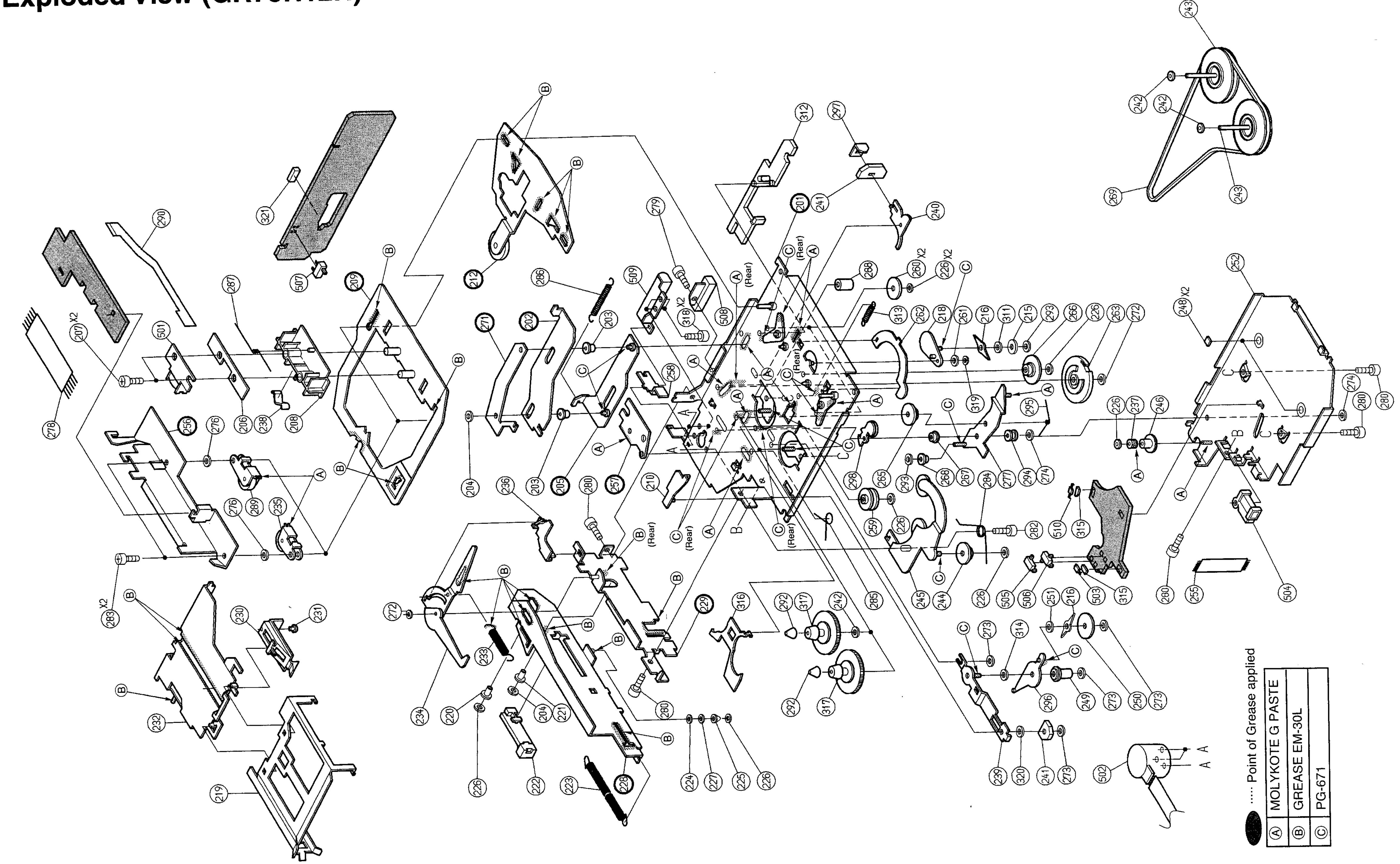
Exploded View (GR75H12H)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- ● ..... Point of Grease applied

Ⓐ	MOLYKOTE G PASTE
Ⓑ	GREASE EM-30L
Ⓒ	PG-671

Cassette Deck Mechanism Assembly Parts List

Symbol No.	Index	Part No.	Description
203		43A51119W01	Roller, Sub Head
204		04B41345P01	Washer, Lock (M1.2)
206	3-B	41A31756W01	Spring, Head (GR-Y)
207	2-A	03A38021W01	Screw, Flange (M2×4)
208	3-B	43B12545W01	Tape, Guide
210	3-D	01A30462W01	Assy., Riv. Lever R / F Sol.
215	2-F	44A30480W01	Gear, Planet
216		41A30475W01	Spring, Clutch
218	2-F	01A30824W01	Assy., Riv. Lever Reverse
219	5-B	07B40012W01	Holder, Cassette
220	4-C	43A12583W01	Roller, Eject
221	4-D	43A63281F01	Roller, Plate Base
222	5-C	44A82206F01	Rack
223	5-D	41B10386W05	Spring, GR (Rack)
224	5-D	43A10121W01	Roller, Eject (A)
225	5-D	43A71257W01	Roller, Eject (B)
226		04B41345P11	Washer, Lock (M1.2)
227	5-D	43A12377W01	Roller, Eject (C)
230	4-B	45B10376W01	Slider
231	4-B	47A63278F01	Shaft, Slider
232	4-B	01A40024W01	Assy., Riv. Plate Base
233	4-C	41B63283F11	Spring
234	4-C	01A40021W01	Assy., Riv. Eject Arm (D)
235	3-B	01B30863W02	Assy., Pinch Roller
236	3-C	45A10087W01	Lever, Pack In Switch
237	3-G	44A20314W01	Pinion, Eject
238	3-B	26A20537W01	Shield, Plate
239	5-F	01A40881W01	Assy., Riv. RF Link
240	2-F	45A40725W01	Lever, Play Sol.
241		76T10374W01	Chip
242	4-E	04S40075G05	Washer, Polyslider (M2.1)
243		01A30488W01	Assy., Flywheel
244	4-F	44A10141W01	Gear, Eject Idler
245	4-E	01A70048W01	Assy., Riv. Lever Clutch
246	3-G	44A10145W01	Gear, Eject
248	2-G	43A41656W01	Spacer, UHMW
249	4-F	44A30481W01	Gear, RF Idler
250	4-G	44A30483W01	Gear, RF
251	4-F	04S40075G58	Washer, Polyslider (M2.1)
252	2-G	01A71527W01	Assy., Riv. Cover Bottom
255	4-G	30T15126W10	Wire, PC Sensor (9P)
258	3-D	45A10101W01	Lever, Eject Sol.
259	3-E	49A30476W01	Pulley, Idler
260	2-E	44A30482W01	Gear, Take Up
261	2-F	44A30478W01	Gear, Sun
262	2-E	44B10135W02	Gear, Fix
263	2-F	44B70042W01	Gear, Pause
265	3-E	44A70044W01	Gear, Pause Idler (B)
266	2-F	44A30479W01	Gear, Reverse Idler
267	3-F	44A30485W01	Gear, Motor Idler

Symbol No.	Index	Part No.	Description
268	3-F	44A30487W01	Gear, Motor Clutch
269	2-F	42A31850W02	Belt, GR-H
272		04B41345P15	Washer, Lock (M1.2)
273		04B41345P02	Washer, Lock (M1.7)
274		04B41345P17	Washer, Lock (M1)
276	3-B	04B41345P32	Washer, Lock (M3.1)
277	3-F	01A30464W01	Assy., Riv. Play Clutch
278	3-A	30T15126W02	Wire, PC Joint (7P)
279	2-D	03S44205G78	Screw, Pan (M2×6)
280		03S44205G30	Screw, Pan (M2.6×4)
282	3-F	03A12132W03	Screw, Eject Clutch (M2×2.3)
283	4-A	03S43997P64	Screw, Pan (M1.7×3)
284	3-F	41A10384W01	Spring, Eject Clutch
285	4-E	41A10385W01	Spring, Cassette Push
286	2-C	41B10386W02	Spring, Sub Head
287	2-B	41A10387W01	Spring, Pinch Roller
288	2-E	43A12719W01	Roller, Pause
289	3-B	01B30863W01	Assy., Pinch Roller
290	2-B	84T25151W01	Head P.C.Board
292	4-E	49A40718W01	Reel, Cap
293		04B41345P35	Washer, Lock (M1.7)
294	3-F	43A30827W01	Spacer, Motor Idler
295	3-F	41A30490W01	Spring, Play Clutch
296	4-F	01A40882W01	Assy., Riv. Lever RF
297	1-E	43A41744W01	Lock, Solenoid
298	3-E	01A70940W01	Assy., Riv. Lever Pause
311	2-F	04B41345P46	Washer, Lock (M2.1)
312	1-E	45A70860W01	Dumper, Sub Head
313	2-E	41A71549W01	Spring, Reel Brake
314	4-F	04S40075G68	Washer, Polyslider (M2.1)
315		15A71833W01	Guide, Photo
316	4-D	01A71704W01	Assy., Riv. Lever Brake
317	4-E	01A45062W03	Assy., Panel
318	2-D	03S94385F47	Screw, Pan Nylok (M2×3.3)
319	3-F	04B41345P18	Washer, Lock (M1.2)
320	5-F	41A10097W02	Spring, Clutch
321	2-B	14A71558W01	Insulator, Cover

Miscellaneous

501	2-B	88T15971W03	Head
502	5-F	01V51800W42	Assy., Motor (13.2V-105mA)
503	4-F	51T15144W02	Sensor, Photo ON2170-R1
504	4-G	01T10371W01	Assy., R / F Solenoid
505	4-F	40T15382W01	Switch, Detector (PACK DOWN)
506	4-F	40T15382W01	Switch, Detector (METAL)
507	2-B	40T15222W01	Switch, Detector (PACK IN)
508	2-D	01T15249W01	Assy., Play Solenoid
509	2-D	01T10369W02	Assy., Eject Solenoid
510	3-F	51T15144W02	Sensor, Photo ON2170-R1